

Appendix A: Response to Substantive Comments from the Upper Big Hole East Landscape Restoration Environmental Assessment

Letter Author and Comment Number	Comment	RESPONSE - identify changes made to EA if appropriate
Rissien	"Regarding sensitive plant species, the analysis does not account for the dispersed camping exemption in the existing condition and if the proposed action would directly or indirectly impacts these species"	The Erigeron linearis population is greater than 300 feet from the closest road that is seasonally restricted and would not be impacted by the exemption. Most, all but one, of the eleven known populations of Arabis fecunda are within 300 feet of roads that are opened for some period of time during the year. Two of the populations are within 300 feet of an open road but the terrain would not lend itself to dispersed camping. The other seven populations are directly adjacent to open roads and have not shown a decrease in the surveys conducted.
Garrity # 10	"The EA is not clear what native species were found. What native species and sensitive species did you find, how many, and how did you look for these?"	Arabis fecunda (Rapphrie Rockcress) and Erigeron linearis (Linearleaf Fleabane) are known to occur on BLM lands within the planning area. 1999 survey of Erigeron linearis found more than 100 plants 100% flowering. Eleven different Arabis fecunda populations were found with surveys in 1988, 1990, 1994, and 2005. Populations ranged from about 5,050 to about 100+ plants. Surveys were conducted by the Montana Natural Heritage program. A map of the special status plant locations is included in the administrative record.
Garrity # 31	"Which sensitive species and ecosystem processes, if any, does proposed logging and fire-proofing benefit?"	Arabis fecunda "occurs on moderate to steep slopes with warm (SE, S, SW, W) aspects and relatively sparse vegetation." Logging and fire-proofing by removing more competitive ladder fuels may allow Arabis fecunda to expand into those newly opened areas. One riparian treatment and no upland treatments have the potential for interaction. "Erigeron linearis occurs in dry, often rocky soil from the foot hills up to moderate elevations, frequently with sagebrush. Removing competition may allow Erigeron linearis to expand into these less competitive areas. One treatment area may interact with the known population within the planning area. <i>See 3-86 and 3-87</i>
Garrity # 32	"Which species and processes does proposed logging and fire-proofing harm?"	Logging and fire-proofing may directly impact plants that are within the treatment areas. Individual plants could be stressed or destroyed because of equipment or foot traffic. The treatment areas only slightly overlap with the two population areas and loss of the population is not expected. See Chapter 3.

Garrity # 82	<p>"The EIS should analyze the significance of the impacts of past impacts on populations of sensitive and TES species accruing from livestock grazing, it's connected actions, and other human development activities. The EIS should discuss the available data from RMP implementation monitoring on how sensitive populations have responded to grazing and other management actions. If sufficient data is not available to indicate trends for these Sensitive species, the EIS should say so and the analysis be expanded to acquire the information so that cumulative impacts from further grazing and other ongoing actions in the area can be adequately analyzed. Also the number of cattle on each allotment and the time they are allowed on the allotment need to be examined."</p>	<p>Population specific trends are not available for all individual populations. The trends from the Montana Natural Heritage program show stable with the possibility of being reduced due to encroachment from weeds and conifers. These plants generally grow in areas not frequented by cattle and it has also been shown that populations may increase under the disturbance of cattle.</p>
Garrity # 1	<p>Will the BLM be considering binding legal standards for noxious weeds in its Land Management Plan?</p>	<p>Several laws, regulations, and policies govern the management of noxious weeds on public lands. The Carson-Foley Act (1968) directs agencies to destroy noxious plants. The Federal Noxious Weed Act (1974), as amended by Section 15-Management of Undesirable Plants on Federal Lands (1990), directs agencies to have an office or person trained to coordinate an undesirable plant management program, adequately fund the program, implement cooperative agreements, and conduct Integrated Weed Management. <i>All treatments of invasive species proposed under this EA would conform to the guidance and standards set forth in the Vegetation Treatments Using Herbicides on BLM Lands in 17 Western States Programmatic EIS approved on September 29, 2007 and the Noxious Weed Control on Public Lands EA (MT-050-08-12) approved April 2008, to which this EA is tiered. Chapter 1.</i></p>

Garrity # 3	How effective has the BLM been at stopping (i.e. preventing) new weed infestations from starting during logging and related road operations?	In the last recent years, pre-treatment, annual or bi-annual post treatment, and subsequent years of monitoring has kept new invaders to a minimum. Requirements of pre and post wash of all equipment and vehicles in logging operations has also greatly reduced new infestations. <i>All off-road vehicles and heavy equipment would require inspection and approval by BLM personnel prior to moving to the project area. In some cases, weed inspections could also be required before moving between units on the same project. Chapter 2</i>
Garrity # 4	Is it true that new roads are the number one cause of new noxious weed infestations?	Though roadways can be noxious weed vectors, any type of disturbance, be it natural or unnatural, can cause introduction of weed species. SOPs are in place in the Butte Field Office Weed Plan Revision (2009) which is tiered to the Vegetation Treatments Using Herbicides on BLM Lands in 17 Western States Programmatic EIS approved on September 29, 2007. <i>Chapter 1.</i>
Garrity # 7	Is it true that noxious weeds are one of the top threats to biodiversity on public lands?	Nonsubstantive Comment. Noxious weeds is a high priority on BLM lands.
Garrity # 8	How can the BLM be complying with FLPMA's requirement to maintain biodiversity if it has no legal standards that address noxious weeds?	BLM is complying with FLPMA by following the Carson-Foley Act (1968) and the Federal Noxious Weed Act (1974). "Partners Against Weeds, An Action Plan for the Bureau of Land Management" is the BLM strategy to prevent and control the spread of noxious weeds on BLM lands through cooperation with all partners.
Garrity # 54	What is the quantified cumulative risk (i.e. what is likely rate of spread and percentage of increase in acres infested) of noxious weed spread as a result of this project, the grazing allotments in the project area and other commercial logging/road-building projects on the Western Montana District of the BLM?	Since no actions would be implemented under Alternative A, there would be no cumulative effects to noxious weed spread. Ongoing and future activities would continue to provide potential vectors for weed spread. The use of open, motorized roads and trails by the public would continue to result in a moderate threat of weed seed transport and deposition within the analysis area. There is a low to moderate potential for continued livestock and wildlife to spread weeds spread, based on existing levels of weed infestation. Timber harvest (hazard tree removal and commercial thinning) and mastication activities under Alternative B (4,430 acres) would have the potential to create ground disturbance that is susceptible to weed invasion, and would be expected to result in a moderate potential for weed establishment and spread. The cumulative impacts under this alternative would generally be the same as described in Alternative B. However, these impacts would be to a lesser degree because the proposed vegetation treatments would be reduced significantly under this alternative. The cumulative impacts to weeds under Alternativ D would generally be the same as described in Alternative C. Eliminating livestock grazing in the Jerry Creek and Foothills Allotments could lessen the risk of weed distribution in these areas; however wildlife would continue to transport weeds.

Garrity # 55	Why does the BLM assume that ever-increasing noxious weed infestations will not adversely affect the long-term productivity of the land? What is the best available science, published, peer-reviewed science on this issue?	The BLM does not assume that weed infestations will not adversely affect the long-term productivity if not some sort of weed management is implemented. Appendix B displays how invasive plants are given a risk rating. This alternative is estimated to have an overall low-moderate risk of increasing the density and spread of weeds into uninfested lands in the short term, and the presence of mostly small, low-density invasive plant species infestations in the proposed treatment units. This risk rating would also apply to access roads and haul routes used for project activities, and identified aquatic habitat improvement projects. The rationale for this low-moderate risk rating is that (1) existing weed infestations within the proposed treatment units are small, (2) treatment of infestations within harvest units, and along access roads and haul routes would occur prior to vegetation management actions, (3) post-activity monitoring (and retreatment, if necessary) would occur following cessation of project activities and (4) project activities would avoid known cheatgrass infestations.
Garrity # 101	Plants that cattle don't eat are more likely to survive, shifting the natural balance of grass, forbs, and shrubs. This creates perfect conditions for many noxious weeds. The invasion and spread of noxious weeds by cattle is widely known and accepted. Many roads are open so that permittees can move cattle around, therefor the impacts of open roads on noxious weeds is a grazing problem as well. Please analyze the site-specific and cumulative impacts in the allotment.	The use of open, motorized roads and trails by the public would continue to result in a moderate threat of weed seed transport and deposition within the analysis area. Based on existing levels of weed infestation and the continuation of future livestock grazing actions, there is low to moderate potential for livestock grazing activities to result in measureable weed spread into uninfested lands within the analysis area. Even in the absence of these ongoing activities there would be potential for weeds to invade.
Garrity # 102	What new invaders are present and how will these be controlled when wandering livestock eat seed or carry it to new sites? For existing weed sites, effective management would involve yearly follow-up and monitoring of each noxious weed site and closure of	New invaders will be treated with the EDRR (Early Detection Rapid Response), so far no new invaders have been found in the planning area. Treatment of existing noxious weed infestations would continue to occur on an annual basis by Bureau of Land Management Weed Control Crew and in accordance with the Butte Field Office Weed Management Plan Revision EA 2009. The BLM Weed Crew, Beaverhead County Weed District, Butte-Silver Bow Weed District, and the Big Hole Watershed Weed Committee have very active weed control programs, and current and planned weed control would continue to benefit native plant communities within the analysis area by containing and reducing the coverage and density of existing weed infestations.

	<p>affected main roads to prevent vehicular spreading to even more areas.</p>	
<p>Garrity # B Noxious Weeds</p>	<p>...This project will exacerbate existing infestations a create new infestations as a result of the construction of 6 miles of new roads. As discussed above, roads are widely recongnized as the primary vector for the introduction of new weed infestations...the BLM's decision to build 6 miles of new roads that will undoubtedly lead to new weed infestations is arbitrary and violates FLPMA's mandate to protect native plant diversity. The BLM must amend the RMP to adopt legally binding RMP standards that restrict new noxious weed infestations with preventitive thresholds for roads and ground-disturbing activities.</p>	<p>The use of open, motorized roads and trails by the public would continue to result in a moderate threat of weed seed transport and deposition within the analysis area. Based on existing levels of weed infestation and the continuation of future livestock grazing actions, there is low to moderate potential for livestock grazing activities to result in measureable weed spread into uninfested lands within the analysis area. Even in the absence of these ongoing activities there would be potential for weeds to invade. Under this alternative, the overall linear road length in the planning area is 3.58 miles. Alternative B would have 6.5 miles of temporary roads. Although temporary roads would be closed under all action alternatives, the potential for unauthorized use on temporary roads would be higher under Alternative B due to more miles of temporary roads. With an increase in roads, there is an increase in the risk new infestations of noxious weed establishment. The use of open, motorized roads and trails by the public would continue to result in a moderate threat of weed seed transport and deposition within the analysis area. Preventive measures are in place for all temp roads which include pre-inspections for weed seed dispersal.</p>

Rissien	Regarding noxious invasive plant species (weeds), the analysis provides a summary of affected acres along the roadside, but it's not clear how much of the road side was included in the analysis. At the very least, it should be 300 ft off either side of the road to account for the dispersed camping exemption. Given the disclosure that a full assessment has not been completed, any changes to travel management should be put on hold until the inventory is completed and a weed management plan created that prevents further spread of noxious weeds from motorized travel.	An inventory and treatment of the roadways is currently being taking place (summer 2012).
Garrity # 23	"Runoff that flows from logging roads into a system of ditches, culverts, and channels and then into forest streams and rivers constitutes a point source under the Clean Water Act and requires a National Pollutant Discharge Elimination System ("NPDES") permit. Do you have a permit? Please disclose all such locations in the Project area and demonstrate that you have complied with the NPDES permitting process for these point sources."	Presently, NPDES permits are not required, but there are pending legislation and court rulings that could affect the NPDES relative to roads. The EA discloses that state issued stormwater discharge permits may be required. The EA also discloses that treatments will comply with relevant laws, which could compliance with changes made to the NPDES in the future.

Garrity # 42	"Does the project comply the Big Hole TMDLs?"	TMDLs were completed for the project area, and the project complies with the Middle and Lower Big Hole Planning Area TMDLs and Water Quality Improvement Plan, as disclosed in the Key Issues and/or Resource Considerations considered, but eliminated section of the EA.
Garrity # 50	"What is the level of detrimental soil disturbance in each proposed burning unit from past and present grazing?"	Soil disturbance was assessed as part of interdisciplinary team/watershed assessment process and disclosed in the Soil Quality section of the EA.
Garrity #56	"The EA says the road system would continue to impact streams by contributing sediment. Runoff that flows from BLM roads into a system of ditches, culverts, and channels and then into forest streams and rivers constitutes a point source under the Clean Water Act and requires a National Pollutant Discharge Elimination System ("NPDES") permit. Please disclose all such locations in the Project area and demonstrate that you have complied with the NPDES permitting process for these point sources."	As disclosed in the EA, treatments proposed in the project area include improving stream crossing and decommissioning roads to reduce impacts to streams. See response to comment Garrity #23 regarding NPDES.
Garrity #57	"The EA says there are WQLS streams in the project area. Have TDMLs been completed? TMDLs must be completed before a decision is signed as required by the Clean Water Act."	TMDLs were completed for the project area, and the project complies with the Middle and Lower Big Hole Planning Area TMDLs and Water Quality Improvement Plan, as disclosed in the Key Issues and/or Resource Considerations considered, but eliminated section of the EA, including references and links to TMDL documents.

Garrity #59	<p>"Cumulative effects from actions that affect hydrologic functioning must be assessed on a watershed basis, yet the EA fails to disclose the cumulative area of soils that are compacted or otherwise hydrologically dysfunctional due to roads, skid trails, recreational trails, livestock grazing, mining, and fire effects such as hydrophobic soil conditions, erosion, etc. on a watershed by watershed basis (within the watershed boundaries that would be affected by the proposed burning activities)."</p>	<p>The project area is a watershed, as disclosed in the EA. Cumulative impacts for the project area/watershed were discussed in the EA. Proposed treatments would reduce potential for hydrophobic soils to develop and for erosion/sedimentation. Potential impacts to soils resulting from treatments were discussed in the Soil Quality section of the EA. Measures discussed in the EA to limit detrimental impacts to soils, or improve soil quality were discussed as design features, mitigation measures, reclamation/rehabilitation treatments, and proposals to avoid conditions that could produce detrimental impacts.</p>
Garrity # 60	<p>"The EA ignores the issue of bedload sediment. Bedload sediment is the coarse particles, as opposed to fine, suspended sediment. CE only mentions the latter, greatly obfuscating the issue. Elevated levels of coarse sediment degrade streambeds and destroy fish habitat features such as spawning and over wintering pools. It is highly correlated with excessive water yields caused by roads, logging, and fire."</p>	<p>Sediment was considered in Proper Functioning Condition Assessments.</p>

Garrity #90	<p>"Riparian studies should be undertaken and disclosed for all streams and wetlands on the allotment. Please disclose in the EA each stream encroachment of forest habitat into the riparian zones, overall percentage of stream bank damage/shear, degree of water table lowering due to livestock grazing, and estimate of stream widening and water level lowering. Are there streams that are now dry or ephemeral due to livestock grazing that were once perennial? Compared to natural levels, what are the sediment loads, levels of fecal coliform bacteria, stream bank stability and stream flow rates of the streams in the area? Please disclose the locations of seeps, springs, bogs and other sensitive wet areas, and the effects on these areas of livestock grazing. "</p>	<p>As disclosed in the EA, streams were assessed for Proper Functioning Condition, and water quality data, collected by the state, is available online at the Montana Clean Water Act Information Center (CWAIC) and TMDLs. See response to Garrity #91 regarding TMDLs/water quality. Maps attached to the EA disclose locations of stream reaches, and no streams are ephemeral as a result of livestock grazing. All streams were assessed and monitored, and data is available on the Butte Field Office website (http://www.blm.gov/mt/st/en/fo/butte_field_office/landhealth.html) in Land Health Assessment Reports, as noted in the Background section of the EA in Chapter 1.</p>
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Garrity #91	<p>"What are the impacts on water quality, temperature, stream channel morphology alone, and cumulatively with roads, natural and prescribed fire, logging and other management projects? How have stream flow quantities changes—do you have baseline information on this? The EIS or EA if you insist on continue with one should show that the proposed alternatives would comply with the Clean Water Act and all state water quality laws and regulations. This includes stating the beneficial uses of the streams and how these beneficial uses have been impacted or degraded by past management actions, and how these beneficial uses would be impacted by the various alternatives."</p>	<p>As disclosed in the EA, water quality compliance determinations are the responsibility of the Montana Department of Environmental Quality (DEQ). The DEQ monitors streams in the project area, assesses water quality relative to beneficial uses, and develop TMDLs, as presented in the Middle and Lower Big Hole Planning Area TMDLs and Water Quality Improvement Plan. Treatments proposed in the project would improve water quality, as disclosed in the EA. The BLM has collected and continues to collect baseline and recurring stream information, including stream flow and water quality data pre-treatment so that post decision impacts could be assessed. See response to comment Garrity #90 regarding availability of stream assessment data.</p>
Garrity #104	<p>"Compaction by cattle likely slows seedling growth rates, creates stress for any plant that is stepped on, and may impact roots of larger trees as well. Compacted soils on slopes don't retain moisture as well, and this can cause more runoff than uncompacted slopes, and impact riparian areas that typically absorb the water. Please analyze the effects of cattle on native plant diversity and soils."</p>	<p>Effects from cattle were assessed as part of the interdisciplinary team watershed assessment. Soil compaction in the uplands from cattle was not observed. Methods to reduce trampling effects from cattle in riparian areas were discussed in the Riparian, Wetland, and Aquatic Health section of the EA. Compaction was not identified as a limiting factor effecting plant diversity.</p>

Garrity #105	"We are concerned that detrimental soil thresholds may already have been exceeded in the allotment areas. The EIS should include disclosures of the amount of detrimental soil conditions due to past activities."	Impacts to soils were assessed as part of the interdisciplinary team watershed assessments. As disclosed in the EA, treatments were proposed to decommission roads where erosion/sedimentation was found to be an issue, and to improve conditions where trampling in riparian areas were found.
Garrity #106	"How you will meet soil conservation standards under the RMP?"	Methods for mitigation and reclamation were disclosed in the EA, including design features, mitigation measures, reclamation/rehabilitation treatments, and proposals to avoid conditions that could produce detrimental impacts.
Garrity #108	"The EIS should define "activity area" to indicate whether or not detrimental soils thresholds have been exceeded."	The term "activity area" was not used in the EA. If referring to a project area, impacts to soils were described in the Soil Quality section of the EA.
Wildlands CPR	"How many water quality limited stream segments occur within each allotment area?"	Water quality listed streams were summarized in Table 1 in the EA. Further, factors negatively affecting stream function, including water quality, were described in the EA, by allotment.
Garrity #78	We still believe that an Environmental Impact Statement (EIS) should be prepared with alternatives that focus on recovery and rehabilitation for those areas previously impacted from grazing- fish and wildlife habitat improvements, watershed rehabilitation, and erosion control- alternatives that would completely eliminate livestock grazing in the analysis area. Such alternatives would fully disclose to the public a full and reasonable range of alternatives as NEPA requires.	As described in the EA, a no grazing alternative (Alternative D) was analyzed for both the Foothills and Jerry Creek Allotments.

Garrity #80	<p>An issue arises that the direction provided for in the RMP (i.e., that grazing on the lands is appropriate) may not be correct in terms of allowing sustainable ecosystem functioning. This is especially important since the idea of "ecosystem management" was not BLM policy when the RMP was written, nor previous AMP's formulated. As recent case law and appeals have documented, RMP direction must be validated at the project-specific and site-specific levels. Just because the Plan assumes the area is suitable for grazing does not necessarily mean that this is currently the case. As a consequence, the analysis team should validate the assumptions made in the RMP regarding acres under consideration, and propose amendments of the RMP to remove unsuitable acres from areas that allow grazing. In relation to livestock grazing, any ways that the RMP conflicts with sound principles of "ecosystem management" should be clearly identified. Please disclose in the analysis data that show how the assumptions in the RMP relate to actual conditions on the ground. These assumptions include the number of animals</p>	<p>Effects from livestock grazing were assessed as part of the interdisciplinary team watershed assessments. It was determined that livestock grazing was one of the factors contributing to both the Foothills and Jerry Creek Allotments not meeting all of the Montana, North Dakota and South Dakota Standards for Rangeland Health. This EA describes and analyzes three alternative with regards to changes in livestock management (Alts. B,C and D). The Butte Resource Management Plan (RMP) of 2009 made three (3) allotments within the project area unavailable for livestock grazing (Charcoal Mtn., Dickie and Alder Creek); due to steep terrain, lack of available livestock forage due to timber and lack of infrastructure.</p>
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	<p>which can be sustainably grazed as well as suitability for grazing at all.</p>	
Garrity #88	<p>Livestock grazing has detrimentally impacted many riparian areas. Fencing off entire sections of riparian areas that are most easily accessible to the cattle does not seem financially feasible. Use of a rider to control the movement of the cattle has not proven to be effective. Fragile riparian ecosystems are already heavily</p>	<p>There are multiple allotments within the project area. It is not possible to address the majority of this comment without knowing which allotment is being referred to. In many areas throughout the west, the proper use of rider(s) has been shown to be an effective livestock management tool.</p>

	impacted by livestock. It is ultimately reasonable to withhold grazing from this allotment until the riparian areas have had time to recover.	
Garrity #95	How much has the BLM take in annually for the allotment?	There are multiple allotments within the project area. It is not possible to address this comment without knowing which allotment is being referred to. The 2012 grazing fee is \$1.35 per AUM, this is unchanged from 2011.
Garrity #96	How much is spent by the Forest Service in administering the allotment, on-the-ground and administratively?	There are multiple allotments within the project area. It is not possible to address this comment without knowing which allotment is being referred to. This comment is outside the scope of the EA, because this project only addresses BLM administered lands.
Garrity #98	The BLM insists that the economic system as it presently exists be a part of the equation for performing "ecosystem management." Although we disagree the way this is interpreted to mean that grazing permittees must be served first, the BLM should follow thorough and tell the full economic story of just what the impacts would be to all taxpayers, not just to the permittees and the "taxpayers in Madison, Silverbow and Beaverhead Counties.	The BLM manages for multiple uses and does not favor one group of users over another. An extensive analysis of the economics of the public land grazing system nationwide is beyond the scope of this project.
Garrity #99	We request an economic analysis that compares the expense of restoring these damaged areas, on a continuing basis, with a no-grazing	It is unclear what damaged areas are being referred to. Alternative D analyzes a no-grazing scenario on the Foothills and Jerry Creek Allotment. Under Alternative D, the range improvement projects proposed in Alternative B and C for the Foothills and Jerry Creek Allotments would not be constructed.

	scenario.	
Garrity #103	Cows trample and eat young trees-examing new plantations in national forests provide graphic examples. What is the impact of grazing on the trees and plants of these allotment areas?	Cattle as well as wildlife species such as moose, elk and mule deer may browse certain species of trees (eg. aspen) during certain times of the year, particularly during fall and winter months when access to other forage is limited or that forage is covered by snow. There are numerous species throughout the project area. Plant response to grazing was assessed as part of the interdisciplinary team watershed assessments.
Garrity	Have there been any permittee violations of the grazing permits? We would like to see a complete documentation of these violations and discussion of the action taken by the Forest Service, in the EA. Such a discussion is fully within the scope of the analysis, since compliance with permit conditions is assumed in EA impacts analyses.	The BLM does not maintain records of action taken by the Forest Service within the project area. The analysis is on the project actions and not on any one operator or permittee.
Johnson #7	Significant impacts from livestock grazing is apparent in at least some portions of the project areas, including riparian areas, demonstrating than an EIS is required.	Where necessary within the project area, including allotments with riparian areas, changes in livestock management are analyzed within the EA. These changes in management are required due to the Foothills and Jerry Creek Allotments not meeting all of the Standards for Rangeland Health.

Johnson #24	<p>It seems likely that logging/burning ecotones is being done to increase forage for livestock, and this should be clearly identified to the public. There is no obvious wildlife rationale for thin/burn ecotone savanna habitat. As for sagebrush, an "at risk" species, it is unreasonable to burn ecotones in order to save sagebrush, since burning will kill it. If sagebrush is so important, then simply remove the conifers in important sagebrush areas, including those important to sagebrush obligates. In the past, burning sagebrush has been done to increase forage for livestock. Please define why this isn't the current case, and demonstrate that the agency isn't misleading the public in regards to sagebrush/ecotone "treatments."</p>	<p>The amount of available livestock forage within the project area is not a limiting factor with regards to livestock grazing. While logging and burning will most likely increase the amount of forage available, this forage will also be available to wildlife species such as elk, moose and mule deer. None of the alternatives in the EA propose an increase in stocking rates due to a possible increase in forage, in fact Alternatives C and D analyze decreasing the stocking rates on the Foothills and Jerry Creek Allotments.</p>
Johnson #25	<p>Please discuss the cumulative impacts of burning and grazing in sagebrush. It is highly likely that there are existing "significant cumulative impacts" on sagebrush due to burning and grazing. Please define how the health of sagebrush has been measured in the project area, and address the fragmentation impacts of past burning as well as the ongoing impacts of livestock</p>	<p>The health of sagebrush within the project area was determined during the interdisciplinary team watershed assessments. The impact assessments include the combined effects of better grazing management and prescribed fire, as applicable, under each alternative.</p>

	grazing, including on regeneration in past burns.	
Garrity # 10	The EA is not clear what native species were found. What native species and sensitive species did you find, how many and how did you look for these?	Chapter 3 and Appendix B describe wildlife habitat and species either known to occur in the project area or suspected to occur based on available habitat. Wildlife observations were documented through past surveys, walk-through surveys, wildlife cameras, BLM and FS wildlife observation databases and the Natural Heritage Species of Concern Data Report.
Garrity # 16	Were "walk-through" examinations completed across large areas of uplands to identify and characterize sites and current condition as well as disturbance - provide supporting records that prove this activity occurred on all assessments. If walk-throughs were not done please explain as why?	Habitat was mapped through aerial photo interpretation, walk-through surveys, forest plots and transects. The condition of riparian and uplands were identified through Properly Functioning Condition Surveys, land health assessments, walk-through surveys, forest plots and sagebrush transects.
Garrity # 17	Were walk through examinations completed across all or large areas of uplands to identify and characterize sites and current conditions and disturbances and if not please explain why?	Habitat was mapped through aerial photo interpretation, walk-through surveys, forest plots and transects. The condition of riparian and uplands were identified through Properly Functioning Condition Surveys, land health assessments, walk-through surveys, forest plots and sagebrush transects.

Garrity # 21	<p>How will the decreased elk security and thermal cover affect wolverines and have you formally consulted with the FWS on the effects of this project on wolverines? The wolverine was recently determined to be warranted for listing under the ESA. 75 Fed. Reg.78030 (Dec. 14, 2010). It is currently a candidate species, waiting for work to be completed on other species before it is officially listed. The USFWS found that “[s]ources of human disturbance to wolverines include . . . road corridors, and extractive industry such as logging . . .” . The BLM must go through ESA formal consultation for the wolverine for this project.</p>	<p>The project area was not determined to be within occupied or potential wolverine habitat.</p>
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<p>Garrity # 22</p>	<p>Last year, USFWS found “substantial scientific or commercial information indicating that listinga [Distinct Population Segment] of fisher in the [Northern Rocky Mountains] of the UnitedStates [under the ESA] may be warranted.” 75 Fed. Reg. 19925 – 19935 (April 16, 2010). Inparticular, USFWS found that listing the Northern Rockies fisher under the ESA may bewarranted in primary part “due to the present and potential future modification and destruction of habitat from commercial timber harvest and commercial wood production by methods that may prevent succession to the mature forest stages preferred by fishers.” The Forest Service admits that the fisher and/or its habitat are present within the adjoining Fleecer project area and would be impacted by the project. Therefore the BLM should formally consulate with the USFWS for the fisher for this project.</p>	<p>The project area was not determined to be within occupied or potential fisher habitat.</p>
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<p>Garrity # 27</p>	<p>Have you checked to see if the project area qualifies as lynx critical habitat as required by the U.S. District Court?</p>	<p>In 2009, critical habitat for lynx was identified as a geographic area containing features essential for the conservation of this species and may require special management considerations or protection. Areas designated as critical habitat for the Canada lynx include boreal forest landscapes that provide one or more of the following beneficial habitat elements for the lynx including snowshoe hares for prey, abundant, large, woody debris piles that are used as dens, and winter snow conditions that are generally deep and fluffy for extended periods of time. Lynx critical habitats are located in areas that have recent verified records of lynx occurrence and reproduction and as a result are considered occupied. In 2009, lynx critical habitat in Montana was located in the Northern Rocky Mountains – Northwestern Montana in Flathead, Glacier, Granite, Lake, Lewis and Clark, Lincoln, Missoula, Pondera, Powell and Teton Counties and in the greater Yellowstone Area including portions of Gallatin, Park, Sweetgrass, Stillwater, and Carbon Counties in Montana. Based on the 2009 critical habitat designation, the UBHE project would not be considered critical habitat. In the summer of 2011, U.S. District Court Judge Donald Molloy ruled that USFWS had wrongly excluded critical habitat occupied by Canada lynx in southwest Montana, north and central Idaho and Colorado. The USFWS will now consider all occupied lynx habitats to see if they are important to the conservation and recovery of lynx. Appendix B describes lynx habitat in the projects area. As stated in Appendix B, “habitat types within the UBHE planning area were found to be predominately dry Douglas-fir habitat types (Douglas-fir/pinegrass) with dry lodgepole pine. The previously harvested lodgepole pine stands identified for thinning under the action alternatives do not provide the structure or understory for high concentrations of snowshoe hares. Therefore, the project area is not considered to provide suitable foraging habitat for lynx. The area does provide habitat (cover) for lynx using the area as a migration or movement corridor.” Due to the type and quality of habitats (dry forest and lack of understory structure), the project was not found to negatively impact forage habitat for lynx. Forest thinning and removal of conifers from sagebrush could reduce cover for lynx moving through the area but adequate cover would remain after implementation in adjacent stands and riparian restoration would also be expected to improve movement corridors for this species. The UBHE project area was not found to be located within lynx critical habitat.</p>
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Garrity # 28	Have you formally consulted with the FWS on the impacts of this project on lynx?	As stated in Appendix B, habitat types within the UBHE project area were found to be predominately dry Douglas-fir habitat types (Douglas-fir/pinegrass) with dry lodgepole pine with a lack of adequate understory vegetation to support high concentrations of overwintering snowshoe hare. Previously harvested lodgepole pine stands identified for thinning did not have the structure or understory for high concentrations of snowshoe hares. Therefore, the project area is not considered to provide suitable foraging habitat for lynx. The area does provide habitat (cover) for lynx using the area as a migration or movement corridor. Due to the type and quality of habitats (dry forest and lack of understory structure), none of the action alternatives would negatively impact forage habitat for lynx. Forest thinning and removal of conifers from sagebrush could reduce cover for lynx moving through the area but adequate cover would remain after implementation in adjacent stands and riparian restoration would also be expected to improve movement corridors for this species. Because of these reasons, the UBHE project was found to have a “No Effect” determination for the Canada lynx and consultation with the USFWS was not required.
Garrity # 31	Which sensitive species and ecosystem processes, if any, does this proposed logging and fire-proofing benefit?	The effects to wildlife sensitive species from restoration activities including forest thinning and prescribed fire can be found in Chapter 3 of the Upper Big Hole East Landscape Restoration Project Environmental Assessment. Additional information on sensitive species is located in Appendix B.
Garrity # 32	Which species and processes does proposed logging and fire-proofing harm?	The effects to wildlife from restoration activities including forest thinning and prescribed fire can be found in Chapter 3 of the Upper Big Hole East Landscape Restoration Project Environmental Assessment.

<p>Garrity #40</p>	<p>Will this project will leave enough snags to conform with the RMP requirements and the requirements of sensitive old growth species such as flammulated owls and goshawks?</p>	<p>Chapter 3 of the EA states “Historically, snags were probably found in low densities on the landscape but these snags would have been large and persisted over a long period of time. Due to spruce budworm and mortality from the Douglas fir beetle, snag habitat and potential snag habitat has increased significantly over historic conditions.” Field reviews by both BLM staff and Forest Service Entomologists have noted an increase in mortality of all size classes of Douglas-fir from spruce budworm and Douglas-fir beetle as well as mortality of lodgepole pine from the mountain pine beetle. The Butte RMP states the following: The BLM will manage for adequate numbers, species and sizes of snags and levels of downed wood to contribute to the needs of wildlife, invertebrates, fungi, bryophytes, saprophytes, lichens, other organisms, long-term soil productivity, nutrient cycling, carbon cycles and other ecosystem processes. To determine the "range of natural conditions" for snag densities, the BLM will follow the "Northern Region Snag Management Protocol" (USDA-FS 2000) until more current or site-specific information becomes available.” 1) Within appropriate habitats, snags and down woody material will be managed to be well-distributed across the landscape in sufficient quantity and quality to support species dependent upon these habitats. 2)At the project level, dead and down woody material will be retained in amounts that are within the range of natural variability for the plant community, to the extent compatible with reforestation objectives, fire hazard reduction standards, and public safety. 3) Management for wildlife values associated with large amounts of down wood and snags will be emphasized less in WUI areas to allow for fuels reduction projects that would reduce the potential for extreme wildland fire. Based on Pfister (1977) habitat types and the Northern Region Snag Management Protocol (USDA 2000), the number of large snags per acre (>20”DBH) in the project area would range from 4-12. The increase in forest insect activity has substantially increased snag habitat across the landscape to levels likely greater than 4-12 per acre. However, as stated on page 2-9 of the EA, “Unless otherwise stated, all snags >15” DBH would be retained, with the exception of those threatening human safety.” This would ensure that large snags would be retained on the landscape for those species dependent on snag habitat such as the northern goshawk and flammulated owl. The effects to northern goshawks and flammulated owls are located in Chapter 3.</p>
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<p>Garrity #41</p>	<p>After snags are cut down for safety for OSHA requirements will there still be enough snags left for old growth sensitive species?</p>	<p>As stated in Chapter 2 of the EA, “Unless otherwise stated, all snags >15” DBH would be retained, with the exception of those threatening human safety.” All efforts will be made to avoid cutting snags. Chapter 3 of the EA states “Historically, snags were probably found in low densities on the landscape but these snags would have been large and persisted over a long period of time. Due to spruce budworm and mortality from the Douglas fir beetle, snag habitat and potential snag habitat has increased significantly over historic conditions.” Field reviews by both BLM staff and Forest Service Entomologists have noted an increase in mortality of all size classes of Douglas-fir from spruce budworm and Douglas-fir beetle as well as mortality of lodgepole pine from the mountain pine beetle. Based on Pfister (1977) habitat types and the Northern Region Snag Management Protocol (USDA 2000), the number of large snags per acre (>20”DBH) in the project area would range from 4-12. The increase in forest insect activity has substantially increased snag habitat across the landscape to levels likely greater than 4-12 per acre. The number of snags, especially snags >20”DBH, removed due to safety reason is expected to be small. Due to the substantial increase in snags across the landscape from forest insects and the small number of snags removed for safely reasons, an adequate amount of this habitat is expected to remain available for old growth sensitive species after implementation.</p>
<p>Garrity #25</p>	<p>Have you formally consulted with the FWS on the effects of this project and the RMP on grizzly bears? A grizzly bear was killed in the area about 4 years ago.</p>	<p>Appendix B describes grizzly bear habitat and use in the project area. As stated in Appendix B, the project area is outside of identified recovery or distribution zones for the grizzly bear but unconfirmed grizzly bear sightings occasionally do occur in the Big Hole watershed. Due to existing disturbance and development from adjacent private lands, the project area most likely does not provide quality, secure habitat for the grizzly bear. The project area does, however, provide migration and dispersal habitat. Although grizzly bears have been identified in the area, there are currently no resident grizzly bears in the project area. The project would modify habitat but grizzly bears are likely transients in the project area and modification of habitats would not be expected to affect their movement. In addition, the project would be expected to improve habitat conditions for grizzly bears by increasing the quality and diversity of forage and prey for this species. Human disturbance would increase during project implementation as well as with an increase in road density under Alternative B but this would not be expected to prevent grizzly bear movement through the project area. All action alternatives were found to have a “No Effect” determination for the grizzly bear and consultation with the USFWS was not required.</p>

<p>Garrity #26</p>	<p>Why aren't you doing more to protect and not harm habitat for westslope cutthroat trout?</p>	<p>Appendix B describes westslope cutthroat trout habitat and use in the project area. Two streams provide habitat for westslope cutthroat trout in the project area, Cat Creek and Harriet Lou Creek. The Upper Big Hole Project proposes constructing an exclosure fence along Cat Creek to allow recovery of riparian vegetation, protect instream habitat for westslope cutthroat trout and prevent bank trampling from livestock use under Alternatives B and C. Within the Harriet Lou drainage, restoration of Douglas-fir savannah habitat is proposed but adequate buffers would be retained along the stream to protect shade, channel integrity and water quality. Chapter 3 of the EA identifies design feature for the project that would protect fish and aquatic habitats. In addition, as stated in the Butte RMP (page 22) "Authorized activities within riparian areas will strive to maintain and restore riparian structure and function, benefit fish and riparian-dependant species, enhance conservation of organisms that depend on the transition zone between upslope and the stream, and maintain or improve the connectivity of travel and dispersal corridors for terrestrial animals and plants. When projects that cause detrimental effects on riparian resources cannot be located outside of riparian areas, short-term and long-term effects will be minimized."</p>
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Garrity # III	<p>III. The U.S. District Court ruled last year that the FWS has to reconsider all of the southwest Montana as critical habitat for lynx. Therefore, before this project can go forward, the BLM must consult with the USFWS on the effect of this project on lynx and if the project will adversely modify lynx habitat. By definition the clearcutting in this project will adversely modify lynx habitat. To say otherwise is arbitrary. The project area is historic lynx habitat which means it is suitable habitat.</p>	<p>Chapter 2 of the EA describes the prescriptions for forest treatments. Small openings could be created in mixed conifer stands but clearcutting is not proposed for any habitat type. In 2009, critical habitat for lynx was identified as a geographic area containing features essential for the conservation of this species and may require special management considerations or protection. Areas designated as critical habitat for the Canada lynx include boreal forest landscapes that provide one or more of the following beneficial habitat elements for the lynx including snowshoe hares for prey, abundant, large, woody debris piles that are used as dens, and winter snow conditions that are generally deep and fluffy for extended periods of time. Lynx critical habitats are located in areas that have recent verified records of lynx occurrence and reproduction and as a result are considered occupied. In 2009, lynx critical habitat in Montana was located in the Northern Rocky Mountains – Northwestern Montana in Flathead, Glacier, Granite, Lake, Lewis and Clark, Lincoln, Missoula, Pondera, Powell and Teton Counties and in the greater Yellowstone Area including portions of Gallatin, Park, Sweetgrass, Stillwater, and Carbon Counties in Montana. Based on the 2009 critical habitat designation, the UBHE project would not be considered critical habitat. In the summer of 2011, U.S. District Court Judge Donald Molloy ruled that USFWS had wrongly excluded critical habitat occupied by Canada lynx in southwest Montana, north and central Idaho and Colorado. The USFWS will now consider all occupied lynx habitats to see if they are important to the conservation and recovery of lynx. Appendix B describes lynx habitat in the projects area. As stated in Appendix B, “habitat types within the UBHE planning area were found to be predominately dry Douglas-fir habitat types (Douglas-fir/pinegrass) with dry lodgepole pine. The previously harvested lodgepole pine stands identified for thinning under the action alternatives do not provide the structure or understory for high concentrations of snowshoe hares. Therefore, the project area is not considered to provide suitable foraging habitat for lynx. The area does provide habitat (cover) for lynx using the area as a migration or movement corridor.” Due to the type and quality of habitats (dry forest and lack of understory structure), the project was not found to negatively impact forage habitat for lynx. Forest thinning and removal of conifers from sagebrush could reduce cover for lynx moving through the area but adequate cover would remain after implementation in adjacent stands and riparian restoration would also be expected to improve movement corridors for this species. The UBHE project area was not found to be located within lynx critical habitat and was consultation with the USFWS was not required.</p>
Garrity # III	<p>Please formally consult with the US FWS on the impacts of this project are required by the ESA.</p>	<p>Two species protected under the ESA were discussed with this project, grizzly bear and Canada lynx. One candidate species, sage grouse, was also addressed through the UBHE EA. Potential habitat and effects to these species is discussed in Appendix B. The effects to sage grouse are found in Chapter 3. As stated in Appendix B, resident grizzly bear or lynx were not determined to be present in the project area and due to the quality of habitat; consultation with the USFWS was not required.</p>

Garrity # III	<p>The RMP requires that the BLM ensures the existence of viable populations of native species, not the theoretical possibility that the species should be present. Moreover, without any indication that there are viable populations of sensitive species in the Project Area before the Project, it is unclear how the BLM could conclude that viable populations of sensitive species will be maintained after the Project.</p>	<p>Page 13 of the Butte Resource Management Plan identifies a goal to “Provide habitat as necessary, to maintain a viable and diverse population of native plant and animal species, including special status species.” The effects to wildlife sensitive species from the project can be found on pages 3-44 to 3-78 of the Upper Big Hole East Landscape Restoration Project Environmental Assessment. Additional information on sensitive species is located in Appendix B.</p>
Garrity # III	<p>Please be aware of the Ninth Circuit’s recent decision in <i>Native Ecosystems Council v. Tidwell</i>, 599 F.3d 926, 935 (9th Cir. 2010) (holding nonexistent MIS cannot serve as proxy). In <i>Tidwell</i>, a Ninth Circuit panel reversed a Montana district court decision upholding the Forest Service’s use of a proxy-on-proxy approach to species viability requirements. The Ninth Circuit held that the proxy-on-proxy approach was not reliable, because the MIS used to determine appropriate habitat, the sage grouse, did not exist in the area being analyzed and there was evidence in the record suggesting that the sage grouse population in the larger geographic area was trending downward. On that record, the Ninth Circuit said “[i]t is</p>	<p>Page 13 of the Butte Resource Management Plan identifies a goal to “Provide habitat as necessary, to maintain a viable and diverse population of native plant and animal species, including special status species.” The BLM land is managed under the Federal Land Policy and Management Act (FLPMA) of 1976. Unlike the National Forest Management Act that provides direction for the Forest Service, FLPMA does not have the requirement to “maintain viable populations of existing native and desired non-native vertebrate species in the planning area.” The National Forest Management Act requires the Secretary of Agriculture to evaluate forest lands, develop a management program based on multiple-use, sustained-yield principles, and implement a resource management plan for each unit of the National Forest System. Among other requirements, the 1982 implementing regulations required the Forest Service to “maintain viable populations of existing native and desired non-native vertebrate species in the planning area.” A viable population was defined in the regulations as “one which has the estimated numbers and distribution of reproductive individuals to insure its continued existence is well distributed in the planning area.” Referred to as the "Viability Standard", it stands as the core principle upon which all wildlife habitat protection rests. Under FLPMA, the BLM will manage public lands in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use.</p>

	<p>unfathomable how the Forest Service could meet its responsibility to maintain existing species by selecting as a proxy a species that is virtually non-existent in the targeted area.”</p>	
Garrity # 46	<p>Did the BLM conduct ESA consultation for the Beaverhead-Deerlodge National Forest Fire Plan?</p>	<p>The BLM is not required to conduct consultation on National Forest projects.</p>
Garrity # 61	<p>The protection, conservation and restoration of westslope cutthroat trout will not be successful unless all essential habitats are protected and are based on the best available scientific data. The law requires nothing less.</p>	<p>Appendix B describes westslope cutthroat trout habitat and use in the project area. Chapter 2 of the EA identifies design feature for the project that would protect fish and aquatic habitats. In addition, as stated in the Butte RMP (page 22) “Authorized activities within riparian areas will strive to maintain and restore riparian structure and function, benefit fish and riparian-dependent species, enhance conservation of organisms that depend on the transition zone between upslope and the stream, and maintain or improve the connectivity of travel and dispersal corridors for terrestrial animals and plants. When projects that cause detrimental effects on riparian resources cannot be located outside of riparian areas, short-term and long-term effects will be minimized.”</p>

Garrity # 62	Please disclose whether you have conducted surveys in the Project area for this Project for wolverines, goshawks, lynx, fisher, flamulated owls, sage grouse, Northern Bog Lemming, Black-backed woodpeckers and grizzly bears, as required by the RMP, the ESA, NEPA and NFMA.	Chapter 3 and Appendix B describe wildlife habitat and species either known to occur in the project area or suspected to occur based on available habitat. Wildlife observations were documented through past surveys, walk-through surveys, wildlife cameras, BLM and FS wildlife observation databases and the Natural Heritage Species of Concern Data Report.
Garrity # 63	Why are wolves listed as a nonessential experimental population on page 61 when they are listed under the ESA?	Wolves are not identified as a nonessential population on page 61. Refer to Appendix B for a description of wolves and wolf habitat in the project area.
Garrity # 64	Have you formally consulted with the US FWS on the impact of this project on wolves, lynx, grizzly bears and wolverines as required by the ESA?	Wolves are no longer listed under the ESA (refer to Appendix B). Potential habitat and effects to grizzly bear and Canada lynx are discussed in Appendix B. As stated in Appendix B, resident grizzly bear or lynx were not determined to be present in the project area and due to the quality of habitat; consultation with the USFWS was not required.
Garrity # 65 and 66	Please disclose the last time the Project area was surveyed for these species. Please disclose how often the Project area has been surveyed for these species.	Wildlife observations were documented through past surveys, walk-through surveys, wildlife cameras, BLM and FS wildlife observation databases and the Natural Heritage Species of Concern Data Report.
Garrity # 67	Would the habitat be better for black-footed ferret if roads were removed in the Project area?	The project area is outside of the range of black-footed ferret.
Garrity # 68	What is the U.S. FWS position on the impacts of this Project on TES? Have you conducted ESA consultation?	Potential habitat and effects to grizzly bear and Canada lynx are discussed in Appendix B. As stated in Appendix B, resident grizzly bear or lynx were not determined to be present in the project area and due to the quality of habitat; consultation with the USFWS was not required.
Garrity # 69	Please provide us with the full BA for these species.	The Biological Assessment is found in Appendix B.
Garrity # 70	How many active goshawk nests are there on the Western Montana District of the BLM?	Appendix B provides a description of northern goshawk nest sites in the project area.

<p>Garritty # 71</p>	<p>Please disclose if the Project will reduce nesting and PFA goshawk habitat further below the recommended percentages for the mature forest component.</p>	<p>Chapter 2 of the EA states that “If raptor nests are discovered during marking or logging operations, a 40-acre modified treatment buffer would be established to conserve the nest area. No treatment related disturbance could occur within the nest buffer area from March through late July. The time of implementation could be modified based on the species using the site and the size of the buffer could be larger than 40 acres, depending on species and location of the nest. Although thinning could occur around nest site, suitable habitat would be retained within 40 acres (or the adequate buffer size determined for the site) surrounding any active or inactive raptor or owl nest sites.”</p> <p>The BLM agrees that additional analysis should be provided for the post fledging area (PFA). (In EA Chapter 3) Active nest sites would be protected during the nesting season from disturbance, and habitat surrounding any nest sites (active or inactive) would remain in a suitable habitat condition after treatment. No trees greater than 18” would be removed under all action alternatives (unless infested with insects and found to be a “threat” to the stand). These project design features should ensure adequate protection of nesting goshawks during critical incubation, and nesting and post fledgling periods and to maintain suitable habitat surrounding nest sites. (ADD) The post fledgling area (PFA) is between 300-600 acres surrounding the nest site and usually resembles the forest structure found around the nest.</p> <p>PFAs represent an area of concentrated use by goshawks after the young leave the nest and until they are no longer dependent on adults for food. PFAs provide young hawks with cover from predators and prey to develop hunting skills and feed themselves in the weeks before they disperse. Forests in the PFA should contain overstories with canopy cover greater than 50 percent as well as snags, nest trees, and prey (USDA 1991). CHANGE IN APPENDIX B - There are four five known northern goshawk territories in the project area. Two One nest site in the Alder Creek area have has not been occupied by goshawks since 2007 and the other is currently active. One nest site in the Jimmie New area fledged 2-3 goshawk young from 2007-2010 but fledged great grey owl in 2011. The other nest site in the Jimmie New area hasn’t been active in recent years. The nest in the Quartz Hill area fledged 2 young in both 2009 and 2011.</p> <p>ADD TO APPENDIX B</p> <p>Reynolds et al (1992) recommends maintaining the following proportions of forest structure within PFA: 20 percent old forest, 20 percent mature forest, 20 percent mid-aged forest, 20 percent young forest, 10 percent seedling sapling and 10 percent grass/forb/shrub. Table XX displays the amount of current habitat around each nest site as well as within the PFA.</p> <p>Nest Site (40 acres) PFA (450 acres) OF MF MAF YF SS GFS OF MF MAF YF SS GFS</p>
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Alder - Nests 1 and 2 0 0 40 20 10 10 0 0 335 81 20 180

Alder - Nest 3 24 14 2 300 75 45 30

Jimmie – Nest 1 18 21 1 39 316 18 23 54

Jimmie – Nest 2 30 10 18 227 26 179

Table XX – Existing habitat around goshawk nest sites. OF = Old Forest, MF = Mature Forest, MAF = Mid-aged Forest, YF = Young Forest, SS = Seedling Sapling and GFS = Grass, Forb anCh – Alternative B

In the Alder Creek area, there are three know nest sites. One nest is currently active and the other two have not been active for the last 4 years. In the Alder Creek area, maintaining suitable habitat within 40 acres surrounding two of the goshawk nest sites (Nests 1 and 2) as well as within the PFA might not be possible due to the location of the Wildland Urban Interface unit. Thinning within the WUI units would remove all dead, dying and live trees in the forested WUI units to achieve a crown spacing of up to 20' in lodgepole stands, and 2½ times crown spacing in the mixed conifer stands. In addition, if mortality and/or blowdown occur after the initial thinning, additional treatments could be required in the WUI units to meet objectives. Treatments within the WUI unit would likely result in stands with less than 40 percent canopy cover and a lack of snags and down wood.

The alternative nest site (Nest 2) outside of the WUI unit would have suitable habitat maintained but since the PFA would also extend into the WUI unit for these nests, habitat in the PFA would also be reduced for these nest locations. The quality of goshawk habitat in roughly 100 acres around these two nest sites in the PFA could be degraded.

After thinning, the proportions of habitat in the PFA around these two nest sites (Nests 1 and 2) could resemble; 0 percent of Old Forest (no change), 36 percent Mid-age Forest (18 percent reduction), 13 percent Young Forest (no immediate change but would increase after thinning to an unknown number), 3 percent Seedling/Sapling (no immediate change but would increase after thinning to an unknown number) and 48 percent Grass/Forb/Shrub (potentially 19 percent increase but in reality lodgepole pine would remain on the site but would be under 50 percent canopy cover). Roughly 200 acres in the PFA is currently in an open canopy condition (32 percent). This would increase to roughly 315 acres in an open condition (51 percent).

The third know nest site (Nest 3) in the Alder Creek area would have no activity in the 40 acres around the nest and activity in the PFA would consist of removing conifers from sagebrush meadows and thinning previously logged lodgepole pine to roughly a12x12 spacing. The 50 acres of lodgepole pine thinning is still expected to retain an overall canopy cover of greater than 40 percent. After treatment, the proportions of habitat and canopy cover in the PFA around this nest site would similar to the existing condition.

In the Jimmie New area, there are two known nest sites. One has activity by great gray owls but the other has not been active for many years. The active nest site (Nest 2) would have no treatments within the 40 acres surrounding the nest. Within the PFA, there could be up to 100 acres of sagebrush treated to remove invading conifers, up to 65 acres of Douglas-fir forest thinned to 50 percent canopy cover and up to 57 acres thinned in Douglas-fir savannah habitat that would be thinned to less than 30 percent canopy cover. After thinning, the proportions of habitat in the PFA could resemble; 4 percent of Old Forest (no change), 38 percent Mid-age Forest (12 percent reduction), 6 percent Young Forest (no immediate change but would increase after thinning to an unknown number), 0 percent Seedling/Sapling (no immediate change but would increase after thinning to an unknown number) and 52 percent Grass/Forb/Shrub (12 percent increase but would be a mosaic of trees, grassland and shrubland). Roughly 70 acres in the PFA is currently in an open canopy condition (16 percent). This would increase to roughly 127 acres in an open condition (28 percent).

The inactive nest site in the Jimmie New area (Nest 1) would have no treatments within 40 acres of the nest site. Within the PFA of this nest site, roughly 100 acres have Douglas-fir savannah habitat could be thinned to less than 30 percent canopy and up to 30 acres of sagebrush could be treated to remove invading conifers. As shown in Table XX of Appendix B, roughly 70 percent of the current habitat is in mid-aged forest stands. Thinning 100 acres of Douglas-fir savannah would move the stands into a more open condition with less than 30 percent canopy cover. Even though trees would remain in these habitats and at least 20 percent of the units would not be cut, this area would be more of a mosaic with patches of trees surrounded by sagebrush and grassland. After thinning, the proportions of habitat in the PFA could resemble; 9 percent of Old Forest (no change), 48 percent Mid-age Forest (22 percent reduction), 4 percent Young Forest (no immediate change but would increase after thinning to an unknown number), 5 percent Seedling/Sapling (no immediate change but would increase after thinning to an unknown number) and 34 percent Grass/Forb/Shrub (22 percent increase but would be a mosaic of trees, grassland and shrubland). Roughly 132 acres in the PFA is currently in an open canopy condition (29 percent). This would increase to roughly 232 acres in an open condition (52 percent).

ADD TO Chapter 3– Alternative C

Under Alternative C, nearly the entire 40 acres surrounding the Nest sites 1 and 2 in the Alder Creek area would be protected (with the exception of roughly 5 acres). In the PFA, roughly 25 acres within the WUI would remove all dead, dying and live trees in the forested WUI units to achieve a crown spacing of up to 20' in lodgepole stands, and 2½ times crown spacing in the mixed conifer stands. In addition, if mortality and/or blowdown occur after the initial thinning,

		<p>additional treatments could be required in the WUI units to meet objectives. Treatments within the WUI unit would likely result in stands with less than 40 percent canopy cover and a lack of snags and down wood.</p> <p>After thinning, the proportions of habitat in the PFA around these two nest sites would be similar to the existing condition (Appendix B). Roughly 200 acres in the PFA is currently in an open canopy condition (32 percent). This would increase to roughly 225 acres in an open condition (37 percent).</p> <p>The third know nest site (Nest 3) in the Alder Creek area would have no activity in the 40 acres around the nest and activity in the PFA would consist of removing conifers from sagebrush meadows and thinning previously logged lodgepole pine to roughly a12x12 spacing. The 50 acres of lodgepole pine thinning is still expected to retain an overall canopy cover of greater than 40 percent. After treatment, the proportions of habitat and canopy cover in the PFA around this nest site would similar to the existing condition.</p> <p>The active nest site (Nest 2) in the Jimmie New Area would have no treatments within the 40 acres surrounding the nest. Within the PFA, there could be up to 55 acres thinned in sagebrush habitat to remove invading conifers. No forest thinning would occur within the PFA at this nest site under Alternative C. The amount of suitable habitat would remain the same as the existing condition.</p> <p>The inactive nest site in the Jimmie New area (Nest 1) would have no treatments within 40 acres of the nest site. Within the PFA of this nest site, roughly 75 acres have Douglas-fir savannah habitat could be thinned to less than 30 percent canopy. As shown in Appendix B, roughly 70 percent of the current habitat is in mid-aged forest stands. Thinning 75 acres of Douglas-fir savannah would move the stands into a more open condition with less than 30 percent canopy cover. Even though trees would remain in these habitats and at least 20 percent of the units would not be cut, this area would be more of a mosaic with patches of trees surrounded by sagebrush and grassland. After thinning, the proportions of habitat in the PFA could resemble; 9 percent of Old Forest (no change), 55 percent Mid-age Forest (15 percent reduction), 4 percent Young Forest (no immediate change but would increase after thinning to an unknown number), 5 percent Seedling/Sapling (no immediate change but would increase after thinning to an unknown number) and 129 percent Grass/Forb/Shrub (17 percent increase but would be a mosaic of trees, grassland and shrubland). Roughly 132 acres in the PFA is currently in an open canopy condition (29 percent). This would increase to roughly 232 acres in an open condition (46 percent).</p>
Garritty # 73	What percentage of old growth forest is necessary to sustain viable populations of dependent species? What is the	<p>This comment is outside the scope of the project. The BLM is not proposing to log any old-growth with this project. The Butte RMP requires we manage to promote old-forest structure. Much of this landscape has been exposed to human activity since the mid-to late- 1800s.</p>

	scientific support for that percentage?	
Garrity # 74	What does the best available science recommend as a threshold for hiding cover for elk and are you meeting it here?	Elk hiding cover is defined as vegetation, alone or in combination with topography that hides 90 percent of an elk from human view at a sight distance of 200 feet. A technical note from Wyoming (1986) suggests that patches of hiding cover should be at least 600 by 1200 feet in size to provide protection to elk. The Butte RMP discusses security habitat to protect elk during the hunting season and from human disturbance by maintaining functional blocks of security habitat and through travel management (page 30 of the Butte RMP). In Chapter 2, of the UBHE EA it states that 20 percent of habitat within units would be not be treated to retain cover within wildlife corridors, patches of security habitat and to provide diversity. A discussion of security habitat can be found in Chapter 3 of the EA.
Garrity # 75	Please disclose the nature of the Montana FWP's comments about the Project.	Montana Fish, Wildlife and Parks did not submit formal comments.
Garrity # 76	Please disclose the road density in the Project area and in each of the five watersheds during Project implementation.	Road density of the five areas is found in Chapter 3 of the EA.
Garrity # 82	The EIS should analyze the significance of the impacts of past impacts on populations of sensitive and TES species accruing from livestock grazing, it's connected actions, and other human development activities. The EIS should discuss the available data from RMP implementation monitoring on how sensitive populations have responded to grazing and other management actions. If sufficient data is not available to indicate trends for these Sensitive species, the EIS should say so and the analysis be expanded to acquire the information so that cumulative	The effects of the project to wildlife, including TES and sensitive species can be found in Appendix B as well as Chapter 3 and in the cumulative effects section of the EA.

	<p>impacts from further grazing and other ongoing actions in the area can be adequately analyzed. Also the number of cattle on each allotment and the time they are allowed on the allotment need to be examined.</p>	
Garrity # 83	Has grazing impacted big game?	Discussion of livestock grazing on big game can be found on pages Chapter 3 and the Cumulative Effects section of the EA.
Garrity # 84	<p>Has grazing fragmented the habitat for wildlife and plants? What effects will the grazing have on the distribution and movement patterns of sensitive and TES species? If habitat communities are present which are not represented by an MIS, such as migratory songbird species depending upon riparian areas and raptors, then this should be stated and the communities should be represented by choice of additional indicator species.</p>	<p>There are five allotments available for leasing within the project area. As shown on Table 1 of the EA, two of the three allotments didn't meet upland standards. The three allotments that met standards (Leffler, Harriet Lou and Quartz Hill) do not have fragmented habitat for wildlife or plants. There were a number of causal factors supporting the ratings of the Jerry Creek Allotment, including historic logging practices, changes in the natural fire regime, heavy browsing of woody riparian vegetation (by both livestock and big game) and stream bank trampling. Stream bank trampling was attributed to livestock grazing. Habitat was not found to be fragmented in the Jerry Creek Allotment due to livestock grazing. Factors for the rating of the upland and biodiversity standard for the Foothills Allotment include existing livestock grazing, conifer colonization reducing desired vegetation (fire suppression) and the presence of forest insects. Although habitat was found to be impacted by livestock grazing in the Jerry Creek and Foothills Allotments, suitable upland habitat remains for movement of wildlife (including sensitive species) across the landscape. The effects of livestock and big game use of riparian areas have most likely caused a decline in secure movement corridors for wildlife, including sensitive species. The loss of riparian habitat has likely also caused a decline in riparian dependent species as well as habitat for sensitive wildlife species. All communities present and effected by the project are discussed in Chapters 2 and 3 of the UBHE EA.</p>

Garrity # 85	<p>To assure population viability as FLPMA requires, you must explicitly consider population dynamics. Population dynamics refers to persistence of a population over time—which is important to making predictions about population viability. The BLM should fully analyze population growth rate, population size, linkages to other populations, and the dynamics of other populations in examining population dynamics.</p>	<p>Under FLPMA, the BLM manages public lands in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use. BLM Manual 6840 states “On BLM-administered lands, the BLM shall manage Bureau sensitive species and their habitats to minimize or eliminate threats affecting the status of the species or to improve the condition of the species habitat, by determining, to the extent practicable, the distribution, abundance, population condition, current threats, and habitat needs for sensitive species, and evaluating the significance of BLM-administered lands and actions undertaken by the BLM in conserving those species.”</p>
Garrity # 86	<p>NEPA requires the BLM to consider biological corridors. The standard for such a review is the same “hard look” NEPA requires of other environmental effects. We are requesting the BLM analyze the current status of wildlife corridors for all sensitive and TES species, and effects of each of the alternatives on the linkages. That means that corridors within the analysis area and linkages with areas adjacent to the analysis area need be examined, plus the value of the entire analysis area as part of a larger corridor within or between ecosystems.</p>	<p>A discussion on wildlife movement corridors is found in Chapter 3.</p>

<p>Garrity # 89</p>	<p>What is the condition of all watersheds and other riparian areas in the analysis area, especially in regards to past management activities including livestock grazing? Please analyze the significance of the adverse impacts grazing has had upon fish and other aquatic organisms. The EIS or EA should disclose the results of up-to-date monitoring and surveys of fish habitat and watershed conditions.</p>	<p>A discussion of fish and aquatic habitats can be found in Chapter 3 and Appendix B. Proper Functioning Condition Surveys were conducted on streams and riparian areas in the project area during 2010 and 2011.</p>
<p>Garrity</p>	<p>The EA fail to fully demonstrate Project consistency with all LCAS Standards and guidelines. For example, the LCAS sets mandatory Standards that would modify or amend the RMPs—steps the RMP has thus far not accomplished. Important Programmatic Standards include:</p>	<p>As stated in Appendix B, “habitat types within the UBHE planning area were found to be predominately dry Douglas-fir habitat types (Douglas-fir/pinegrass) with dry lodgepole pine. The previously harvested lodgepole pine stands identified for thinning under the action alternatives do not provide the structure or understory for high concentrations of snowshoe hares. Therefore, the project area is not considered to provide suitable foraging habitat for lynx. The area does provide habitat (cover) for lynx using the area as a migration or movement corridor.” Due to the type and quality of habitats (dry forest and lack of understory structure), the project was not found to negatively impact forage habitat for lynx. Forest thinning and removal of conifers from sagebrush could reduce cover for lynx moving through the area but adequate cover would remain after implementation in adjacent stands and riparian restoration would also be expected to improve movement corridors for this species. Chapter 3 describes linkage areas for lynx.</p>

Garrity	<p>The EA fails to provide adequate maps of LAUs and habitat components along with areas of human activity as the LCAS requires, making it impossible for the public and decision maker to understand the impacts of motorized travel, as well as to understand impacts on habitat and connectivity of habitat. The BA lacks a genuine analysis of the full range of cumulative impacts of other activities. The EA and BA also fail to disclose the cumulative effects of livestock grazing on the grazing allotments in the project area.</p>	<p>Since the project area wasn't found to provide suitable habitat for lynx, a map of LAUs was not created for the project file. The cumulative effects discussion is found in Chapter 3.</p>
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Rissien	<p>Unfortunately, there is little detail about the current impacts from motorized use within the Riparian Management Zone and acres is not even a metric used to assess potential impacts since the UBHE EA only describes stream miles affected in each area's description and in Table 24. The analysis should explain how existing motorized use (both authorized and unauthorized) currently affects the RMZ and riparian habitats, including impacts from the dispersed camping exemption. For example, in the Jimmy New area the analysis explains, "Cat Creek was rated in prior assessments as PFC, during the 2010 evaluation the team rated the reach as FAR...Although Cat Creek was found to have some of the best riparian vegetation in the Jimmie New area, willow and aspen recruitment was still found to be limited," (p. 3-32). The UBHE EA should have explained why recruitment was limited, why it went from PFC to FAR. Is there any motorized vehicle activity contributing to this degraded condition? How many water quality limited stream segments occur within each allotment area? This lack of analysis is prevalent in all the allotment descriptions.</p>	<p>Refer to previous comment. The existing condition of Cat Creek is described in Chapter 3 of the EA. Motorized use was not a contributing factor to the degraded condition of Cat Creek.</p>
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Rissien	<p>The UBHE EA needs to better describe ongoing road-related impacts, including identification and description of sediment delivery points with an estimation of sedimentation in tons per year. This is especially important for stream segments functioning at risk or not functioning. While the wildlife section does explain, “New seasonally restricted roads proposed under Alternative B would not cross and are not located immediately adjacent to perennial streams,” (p. 3-67), this fails to consider the dispersed camping exemption that may overlap with streams, which could compound the existing condition if there are unauthorized routes or system roads and trail currently affecting streams.</p>	<p>As disclosed in the EA, water quality is the responsibility of the Montana Department of Environmental Quality (DEQ). The DEQ monitors streams in the project area, assesses water quality relative to beneficial uses, and develops TMDLs, as presented in the Middle and Lower Big Hole Planning Area TMDLs and Water Quality Improvement Plan. In the plan, several sources of sediment, including roads, were identified in the watershed by the DEQ. Sediment sources found by the BLM were identified through Proper Functioning Condition Assessments and made available for public review (see response to question Garrity #90). Road decommissioning to address sedimentation is proposed in the EA.</p>
Rissien	<p>The UBHE EA explains, “Increasing human presence in the Pioneer Mountains linkage area during the summer may be displacing or diverting some wildlife use,” (p. 3-42). To what extent is this taking place, and how much displacement is from motorized use? Are there mitigations that can be utilized to reduce displacement?</p>	<p>It is unknown how much displacement is occurring from motorized use. It is suspected that most displacement takes place during the hunting season.</p>

Rissien	<p>The analysis does explain, “Under the current condition, disturbance from human use affects how wildlife disperse across the landscape and how habitats are used. Roads open to motor vehicles often follow drainage bottoms that provide movement corridors for different species. These roads likely have significant effects on how wildlife use these movement corridors,” (p. 3-43). Are there impacts to specific species from these roads? Which roads are barriers to wildlife movement and are there recommendations that can mitigate this impact? How does motorized recreation, both legal and illegal, affect wildlife corridors?</p>	<p>The effects of roads from different species are discussed under the Wildlife Section of Chapter 3. It is unknown if roads in the project area create a barrier to wildlife movement. Travel management for the Upper Big Hole Travel Plan Area (2009) closed roads in the project area to maintain and improve wildlife habitat and to reduce disturbance to wildlife. Road density objectives found in the Butte RMP also promote the reduction of disturbance to wildlife as well as promoting quality habitat for big game. The effects of re-opening roads in wildlife corridors are discussed in Chapter 3.</p>
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Rissien	<p>Looking at the UBHE EA analysis of wildlife overall, we recommend the Butte Field Office use total motorized route density to assess impacts, making sure to separate authorized and unauthorized routes in the exiting condition discussion in order to convey impacts from illegal off-road vehicle use. We expect this would change the numbers in Table 25 displaying road densities, (p. 3-40). For designated roads and trails, the analysis should account for impacts from the dispersed camping exemption, which is especially important for species that favor riparian habitats such as the boreal toad since these areas are extremely susceptible to motorized impacts both through direct mortality and degradation of riparian habitat. Unfortunately, the UBHE EA lacked any discussion of motorized vehicle impacts on boreal toads.</p>	<p>The road density calculation on Table 25 (Chapter 3), took into account all seasonally restricted and open roads. During the Upper Big Hole Travel Planning effort all roads were mapped and given a travel designation. In 2011, roads were again mapped to locate those that were missed during 2009. None of the roads located in 2009 were new user created routes, simply routes that were missed during the 2009 inventory. Dispersed camping had not been found be causing damage in riparian zones within the project area. In the project area, there are 1.7 miles of closed roads in riparian management zones as well as 1.3 miles of seasonally restricted and 0.8 mile of roads in riparian management zones. None of the roads proposed to re-open under this project area within riparian management zones. Added to Document (Ch. 3)- Habitat for the boreal toad would not be directly impacted by this project, but dispersing individuals could be killed by equipment during project implementation or along re-opened roads. Thinning and burning, especially under Alternatives B, could have a beneficial effect to boreal toads after project implementation. ADDED to Document (Chapter 3) - Habitat for the boreal toad would not be directly impacted by this project, but dispersing individuals could be killed by equipment during project implementation or along re-opened roads. Thinning and burning could have a beneficial effect to dispersing boreal toads.</p>
Rissien	<p>Even without these improvements to the analysis, the UBHE EA demonstrates that opening more roads for motor vehicle use will lead to degraded wildlife conditions, and we urge the Butte Field Office not to change current travel management direction, except as necessary to <i>improve</i></p>	<p>Butte Field Office manages for multiple use objectives which include wildlife habitat as well as providing motorized recreation opportunities.</p>

	wildlife habitat.	
Rissien	<p>Ideally, the UBHE EA would have included road management actions that would increase security habitat. Unfortunately, the analysis explains the proposed action would result in decreased big game security habitat for the Alder Creek, Deno Creek, Dickie Hills and Jimmy New areas, (p. 3-54). For the Jimmy New area, Alternative B would decrease security habitat from 32 to 25 percent, which is opposite of the RMP direction. Regarding Rd. #010105 connecting to the Forest Service Bean Ridge Rd. #2166, the UBHE EA explains the proposed action is necessary to meet the Forest Service season of use. While this is understandable, such action should not be decided until the Beaverhead-Deerlodge National Forest completes its travel management planning since the Forest Service may also close its side of the road to benefit wildlife habitat.</p>	<p>The intention for route # 010105 was always to match the USFS designation (i.e. open to motorized vehicles with seasonal restrictions). BLM is simply correcting a mapping and documentation error from the 2009 Upper Big Hole Travel Management Plan. If the USFS changes its designation during the upcoming travel planning process, BLM could re-visit the designation at that time. Reference EA in big game security analysis, reference RMP direction to maintain big blocks of security habitat.</p>

Rissien	<p>Besides a decrease in security habitat, the proposed action would negatively impact the utilization of wildlife corridors by increasing road densities, (p. 3-64). The impact may even be greater once unauthorized use is factored into the analysis as well as the acres affected by the dispersed camping exemption. The analysis explains there is a desire by some people for more motorized access, but such desire does not change the fact that opening more roads and routes for motorized use will decrease big game security and negatively affect wildlife connectivity. We urge the Butte Field Office to put the resource first and not decrease security habitat by providing more motorized vehicle access.</p>	<p>Enforcement activities in addition to signage that identifies closed routes within the project area. Reference analysis for security habitat in EA.</p>
Johnson and Garrity #2	<p>This project requires maps of wildlife habitats.</p>	<p>The administrative file will include maps of big game winter range, calving habitat and security habitat. Northern goshawk and great gray owl nest locations are described by location in Appendix B.</p>

Johnson and Garrity #3	<p>The purpose and need for the project is misleading. The EA claims that this project will "restore" habitat when in fact it is acknowledged either directly or indirectly, that habitat for most wildlife species will be removed. Given this, does the agency believe that wildlife are not actually being considered for the purpose and need, or that they just don't count for land management? How can you remove most wildlife habitat yet call it a restoration project? This seems to be a clear violation of the NEPA and APA.</p>	<p>Chapter 1 outlines the purpose and need for the project. Activities in this project to restore forest structure, riparian habitats and sagebrush stands as well as range improvement projects and improving the livestock grazing systems are expected to benefit many different wildlife species. However, as described in Chapter 3, not all species will benefit from these activities and for some species there could be short or long-term effects. The goal of the project is to move forest habitats back into a condition where they will be less susceptible to forest insects, disease and catastrophic fire. As described in Chapter 3, forest habitats are in a state of decline due to forest insects. Large, old trees that provide high quality wildlife habitat are currently being lost due to Douglas-fir beetle. Thinning has shown to reduce the risk to large, old trees from forest insects. In addition, conifer colonization of sage is causing a decline the quality and quantity of sage habitat, including habitat for sagebrush obligate species. Removing conifers will maintain or improve conditions sagebrush obligate species as well as those that depend on sage at different times during their life cycle such as mule deer on the winter range. One of the biggest benefits to wildlife habitat from the project should come from improving (through better livestock management) or restoring riparian habitats. A critical species, aspen, is expected to increase after restoration implementation. Although the majority of the project was designed to improve habitat for many wildlife species, thinning in the WUI and re-opening roads will not provide any (or few in the case of WUI treatments) benefits to wildlife.</p>
Johnson and Garrity #4	<p>The ongoing and planned impacts to aspen appear to be highly detrimental and the proposed mitigation efforts are possible but not clearly required to prevent the destruction of aspen stands either with and/or without action; the agency provide no data to show removing conifers from aspen will benefit wildlife.</p>	<p>As described on page 3-11 of the UBHE EA, Montana Fish, Wildlife and Parks identifies the loss of aspen from altered fire regimes as a concern. The loss of aspen (predominantly from fire suppression) across the west has been well documented and the decline of aspen can also be found in the project area. In the project area, aspen stands appear to be much smaller than before fire suppression and being lost to overtopping conifers (Chapter 3). Chapter 3 discusses the importance of aspen to wildlife.</p>

Johnson and
Garrity#4

Aspen in the western US is being destroyed by livestock grazing. Removing conifers will only exacerbate the problem, not save aspen. How is the public to believe that after treating aspen, the agency has the manpower and finances to monitor ongoing livestock damage to aspen and then fence these treated stands to protect them? What will be the cost of fencing, and what kind of fencing would be constructed? Since aspen treatment is planned, the agency needs to define current impacts by livestock for all stands proposed for treatment. Also, please provide the science that demonstrates that mixed conifer/aspen stands have no wildlife values, and that removing conifers will benefit wildlife.

The project follows direction provided by the Butte Resource Management Plan. Page 22 of the RMP provides this direction: 1) Where conifers are outcompeting or precluding regeneration of aspen, or preventing establishment of aspen or cottonwood stands, conifers will be removed (via mechanical methods and/or prescribed burning) to provide suitable habitat for expansion of these species. 2) Where the primary project objective is aspen restoration, treated aspen stands will be fenced from livestock and wildlife when recovery could be suppressed by grazing and browsing. Fencing could consist of using native, on-site materials as barriers. All fences (with the exception of barriers created from native, on-site materials) will be maintained and removed within 10 years or when the aspen is fully re-established or recovered. The loss of aspen (predominantly from fire suppression) across the west has been well documented and the decline of aspen can also be found in the project area. As stated in the UBHE EA (page 2-9 and 2-24), livestock grazing could be excluded through timing or fencing until aspen regeneration is a minimum of five feet tall, on average. Temporary fencing could be required in treatment units or in existing aspen stands where it is determined (through pre and post implementation monitoring) that aspen regeneration is being restricted or lost due to browse pressure by livestock, wildlife or both. Fencing could remain on the site for up to 10 years or until aspen are above the browse level for big game species. The cost of fencing would vary based on the type of material used. In many cases, fencing is expected to be done through the use of native materials (trees cut on site) and hand placed around the aspen stand. Trees felled in the stand and left would also provide protection. As stated on page 2-23, most trees removed from aspen stands would be less than 15"DBH. Larger, older trees would be retained unless they are considered to be a substantial threat to the stand. In this case, they could be girdled to create snag habitat. ADDED THE FOLLOWING TO CHAPTER 3 - Grazing, browsing, and trampling by livestock and wildlife can be a serious problem in obtaining aspen regeneration (USDA 1985). Continued grazing of aspen stands reduces productivity (USDA 2001a). Most of the species in aspen stands that are palatable to livestock are forbs and a few shrubs. There are relatively few palatable graminoids (USDA 2001a). Aspen sprouts are palatable to livestock. This can result in the loss of sprouts in aspen stands. Livestock damage is mostly (90 percent) due to browsing but also occurs because of trampling and rubbing (USDA 2001a).

Johnson and Garrity#5	<p>The retention of 20 percent of the habitat in the several thousand acres proposed for “treatment” was identified as a wildlife mitigation measure but its scientific basis and effectiveness as never addressed. Throughout the EA the agency claims that 20 percent of the treatment areas for logging will be left untreated as a wildlife mitigation measure. However, the basis for this measure was never provided. It seems unusual that retaining small fragments within units will provide any reasonable mitigation for wildlife. In addition, these untreated areas need to be mapped so that the public can determine whether this “mitigation measure” will actually be implemented.</p>	<p>As described in Chapter 2 of the UBHE EA, at least 20 percent of habitat would remain uncut to retain patches of hiding cover for wildlife throughout harvest units and along open travel routes. More hiding cover could be retained if determined at the time of unit lay-out. As stated in Chapter 2 of the EA, “the size and location of “leave” patches would be determined on a unit by unit basis. These patches could be scattered throughout harvest units and along open travel routes to provide wildlife hiding cover.” The BLM is unable to provide maps of the 20 percent (or greater) retention areas at this time.</p>
Johnson and Garrity#6	<p>The wildlife species that will benefit from forest openings were never identified. The EA claims at various sections that wildlife species that prefer open forest, such as those that will be created by treatments in forests and savannahs, will benefit from treatment. However, the species these include, and the science behind these claims, were never provided. What are they, and why are they a conservation concern at present, and what is</p>	<p>Wildlife habitat and the effects on wildlife species, including those that prefer open forest habitats, can be found Chapter 3 as well as in Appendix B.</p>

	the science these claims are based on for each species.	
Johnson and Garrity#7	<p>Significant impacts from livestock grazing is apparent in at least some portions of the project areas, including riparian areas, demonstrating that an EIS is required. The EA notes there are problems with livestock grazing, such as on the Limekiln pasture and the Jerry Creek allotment. It is also noted that livestock grazing is impacting various riparian areas as well as aspen. Yet these impacts apparently are not considered ongoing significant impacts, without any explanation in the EA as to how this was determined.</p>	<p>Management changes are proposed in alterantives B, C, and D on allotments and pastures where livestock were determined to be a causal factor in not meeting land health standards.</p>

Johnson and Garrity#8	<p>The claim that logging will save more large trees for wildlife than if the stands are not treated was not supported with any science or monitoring. It is not clear why the agency claims that the only way any large trees will survive on the landscape is if the forests are logging. Please define the science that is behind the claim. If not true, the agency is clearly misleading the public in regards to the purpose and need for the project. If treatment is required to save large trees, how have these large trees managed to develop on these sites without logging?</p>	<p>One reason for the project (Chapter 1) is to restore the historic density, structure, and species composition within the natural range of variability in forest and woodland habitats through mechanical treatments, commercial timber harvest and/or prescribed fire. Chapter 3 describes the current condition of the forests in the project area. As stated on page 3-5, fires typically occurred on this landscape every 35-40 years and maintained a greater number of forest acres in an open canopy condition. Chapter 3 describes the current condition of Douglas-fir savannah and forest habitats. The effects of fire seclusion on these habitat types are described including how thick forests are now being impacted by forest insects. Densely crowded stands of Douglas-fir have been affected by western spruce budworm. In addition, an increase of individual tree mortality resulting from Douglas-fir bark beetle activity is occurring in the assessment area. Trees killed by the Douglas-fir beetle are usually large (>16" DBH) desirable, and high value trees that are important stand and landscape components. One of the goals of the project is to move forest habitats back into a condition where they will be less susceptible to forest insects, disease and catastrophic fire. As described in Chapter 3, forest habitats are in a state of decline due to forest insects. Large, old trees that provide high quality wildlife habitat are currently being lost due to Douglas-fir beetle. Thinning has shown to reduce the risk to large, old trees from forest insects.</p>
Johnson and Garrity#9	<p>The agency provides conflicting rationales regarding project impacts on wildlife. If the agency claims that opening forests is required to restore historic and desired conditions, why on the other hand is it claimed that eventual recovery of dense forest conditions will help recover habitat for wildlife?</p>	<p>The effects to wildlife from restoration activities including forest thinning can be found in Chapter 3 of the UBHE EA.</p>

Johnson and Garrity#10	<p>It is not clear why historic conditions contained almost no wildlife. Since historic forests in this area were supposedly very open, and contained only a few wildlife species, since most require dense forest conditions, are you suggesting that natural forests should be devoid of wildlife?</p>	<p>The BLM is not suggesting that historic conditions contained no wildlife and that natural forest should be devoid of wildlife. One goal of the project is to create a diversity of habitats by heavily thinning Douglas-fir savannah habitat, moderately thinning Douglas-fir forest habitats and restoring or expanding aspen stands and riparian habitats. Creating a diversity of habitats would be expected to result in a greater diversity or number of wildlife species across the landscape. As stated on page 3-38 of the EA, “although most wildlife and avian species that occurred in the project area under a historic fire regime most likely continue to occur within the area today, it is probable that there has been a shift in the number of individuals or species using the available habitat. For example, under a historic fire regime with a more open savannah/woodland type habitat, forage for big game and other species would have been more abundant throughout the year. The existing habitat, however, provides for more hiding cover for big game (important during the hunting season). It is expected that populations of species (such as the flammulated owl) that depend on more open forest habitats would have declined in both the project and analysis areas, whereas those that prefer dense forest (such as the pine marten) or forest generalists would have increased.” The effects to wildlife from restoration activities including forest thinning can be found on pages 3-44 to 3-78 of the UBHE EA.</p>
Johnson and Garrity#12	<p>The value of savannah/mixed conifer edges were never addressed. It seems like the agency is suggesting that mixed conifer in sagebrush edges are a void of habitat for wildlife. Since the levels of conifer encroachment will increase as distance to the adjacent forests decreases, there will obviously be a range of conifer density, each with differing wildlife values. Please discuss how wildlife values per species change with differing conifer densities in sagebrush areas.</p>	<p>A description of wildlife habitats are found on pages 3-38-3-44 as well as in Appendix B. Chapter 3 of the UBHE EA discuss the estimated amounts of conifer colonization in the project area.</p>

Johnson and Garrity#13	<p>The destruction of sagebrush is clearly a significant direct and cumulative impact that requires an EIS. It is clear that any loss of sagebrush will have significant environmental impacts as this “at risk” species also provide important habitat for many species, including the candidate sage grouse and sensitive Brewer’s sparrow. The EA claims that because “maybe” 50 percent of the sagebrush in burned areas will be protected that wildlife will not be impacted, and possibly benefitted, was not supported with any new science or monitoring. Please use the current best science that defines the percentages of the landscape that needs to be in mature and old growth sagebrush in order to retain sage grouse and other sagebrush associated species. The cumulative impacts of burning and livestock grazing also need to be assessed. Livestock grazing has a significant potential to reduce sagebrush seedlings.</p>	<p>Appendix B and Chapter 3 describe sage grouse habitat in the project area. There are anecdotal accounts of sage grouse in the project area but no leks or breeding birds have been found. The project area is not within Preliminary Primary Habitat for sage grouse. ADD TO DOCUMENT (Chapter 3) - Primary Habitat includes areas that have been identified by the BLM as having the highest conservation value to maintaining sustainable greater sage-grouse populations. The Report on National Greater Sage Grouse Conservation Measures produced by the Sage Grouse National Technical Team in 2011 identifies an objective of managing or restoring priority areas so that at least 70 percent of the land cover provides adequate sagebrush habitat to meet sage-grouse needs. The project area, however, is outside of priority area for sage grouse. As stated in Chapter 3, research in Montana revealed that during the breeding season sage grouse utilize habitat with 20-50 percent canopy coverage of big sagebrush (MSGWG 2005). Wintering grouse were found in areas with 20 percent sagebrush cover, and nesting birds were found in areas with an average of 15-30 percent sagebrush cover (MSGWG 2005). Maintaining 50 percent of the overall habitat during prescribed burning would protect sage grouse habitat. Habitat requirements of the Brewer’s sparrow can be found in Appendix B. Effects from prescribed burning on Brewer’s sparrow habitat can be found in Chapter 3 of the UBHE EA. The effects of livestock grazing on Brewer’s sparrow and sage grouse can be found in Chapter 3 of the EA.</p>
Johnson and Garrity#14	<p>The term “restore” sagebrush via burning is clearly a misrepresentation of the actual impact. The burning of sagebrush is destruction, not “restoration.” Please correct this claim in the final analysis</p>	<p>Sagebrush communities are being treated that are encroached by conifers (Chapter 3) in areas where confirs have shaded out sagebrush, burning conifers would open those areas and allow for sage to regenerate. Note clarify in EA.</p>

	document.	
Johnson and Garrity#15	The location of occupied Brewer's sparrow habitat needs to be identified prior to any habitat management. Please map the location of all areas where Brewer's sparrows currently exist in the project area.	All sagebrush stands in the project area are considered to be potential Brewer's sparrow habitat (and occupied habitat) so mapping of this habitat is not necessary.
Johnson and Garrity#16	The impacts of past sagebrush control programs in the project area need to be discussed and addressed as per cumulative impacts of sagebrush control program.	No sagebrush control projects have occurred within the project area , the objectives of previous treatments were to reduce conifer encroachment into sagebrush communities.

Johnson and Garritty#17	<p>Please provide an assessment of direct and cumulative impacts on wildlife (sensitive species, MIS, candidate species) in the project area as a result of past and planned activities. The EA claims that the past and proposed actions will not eliminate any wildlife species viability. This is an irrelevant conclusion because of course the project area covers only a small, minuscule portion of these species total habitat, even for BLM lands. The only important factor as per your analysis is the viability/persistence of these species in the project area. Please provide the basis for determining that all species will persist within the project area after implementation based on the habitat requirements identified in the current science, such as the goshawk southwest guidelines, recommendations for the pileated and three-toed woodpeckers and recommendations for pine marten and various songbirds associated with dense, older forest habitat.</p>	<p>The effects of the project on wildlife including sensitive and candidate species is found in Chapter 3.</p>
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Johnson and Garrity#18	<p>Please provide the science/monitoring to support EA claims that logging will improve hiding cover for big game as compared to no treatments. It is not clear why forest thinning, understory thinning, followed by prescribed burning will provide hiding cover at some future date. How long will this take as compared to no treatment. Why is the current understory going to vanish without treatment?</p>	<p>In the Chapter 3 effects discussion of the UBHE EA, it is recognized that hiding cover would be reduced with restoration of Douglas-fir savannah, forest, sagebrush habitats and in the WUI. The effects to hiding cover are described in Chapter 3 of the EA. Retention of 20 percent uncut areas throughout treatment units would help maintain patches of hiding cover within these areas.</p>
Johnson and Garrity#19	<p>Please provide the literature/monitoring to support that claim that burning sagebrush will benefit big game species. It is not clear why burning sagebrush will benefit elk and mule deer. Please be more specific as to why this will occur, with support from existing science. And by a benefit, do you mean that these big game populations are expected to increase as a result of burning sagebrush? Otherwise, how is benefit being measured.</p>	<p>One of the goals of the project is to maintain and improve sagebrush habitats through existing and/or revised livestock grazing management, structural projects and vegetation treatments (Chapter 1). This includes the removal of conifers from sagebrush meadows through mechanical, hand or prescribed fire treatments. In sagebrush areas with heavier conifer colonization where sage has already being lost due to overtopping by conifers, prescribed fire would be used to clear out the conifers and promote sagebrush. In areas with heavier conifer colonization that has a high conifer seedbed, prescribed fire would be used to reduce conifer seedlings in the after burning. In areas of heavy conifers encroachment, hand cutting or mastication can be less successful due to conifer seedling reproduction after treatment. The goal is not to remove sagebrush but the removal of sage would be unavoidable using fire to reduce conifers. As stated in Chapter 3, although prescribed burning in sagebrush can be of benefit to wildlife through increased forage, burning may not be beneficial to all conservation objectives. Large-scale removal of sagebrush is likely to lower habitat and landscape diversity and reduce populations of indigenous species. Although prescribed burning could increase the amount or quality of forage, the loss of browse (sagebrush) from burning would result in a loss of an important component of the mule diet, especially during the winter. The regenerating brush sprouts and seedlings, however, following fire could offer deer a palatable and nutritious diet. Chapter 3 discuss the effects of prescribed fire on big game.</p>

Johnson and Garrity#20	<p>Please provide the literature/monitoring to support the claim the a mosaic of age classes in sagebrush is better for wildlife than a large continuous patch of old sagebrush. We are not aware of specifically why breaking up old growth stands with burning will benefit wildlife. Why is this so? What wildlife species need small, broken up patches of sagebrush as habitat? What wildlife species require early-seral sagebrush? This seems like a contradiction of habitat management for wildlife species associated with sagebrush. If they are associated with sagebrush, why do they need habitats that lack sagebrush of have just small sagebrush plants, which will have limited benefits as nesting cover and forage.</p>	<p>One of the objectives of the project under Alternative B (Chapter 2) is to use prescribed fire and mechanical activities to reduce conifer colonization and move toward an open mosaic of sagebrush/grassland while maintaining at least 50 percent sagebrush. The effects on wildlife from using prescribed burning are described in Chapter 3.</p>
Johnson and Garrity#21	<p>There was no analysis for pygmy rabbits. Are there any pygmy rabbits in the area, including historically? If so, what is the habitat management strategy for them?</p>	<p>There are no known historic pygmy rabbit locations in the project area. The Species of Concern Report from the Montana Natural Heritage Program did not identify any pygmy rabbit observations. Walk-through surveys of the project area did not locate any sign of pygmy rabbits.</p>

Johnson and Garrity#22	<p>The EA failed to provide any clear habitat strategy for sagebrush. How can you manage sagebrush without any specific habitat objectives? It was noted that sagebrush has been burned in the past in this area. What was the purpose of those burns as per current strategies, and how did these past strategies work? Has wildlife use in these burned areas been monitored? If not, how can you determine the impact of proposed additional treatments?</p>	<p>As stated in Chapter 1, one of the goals of the project is to maintain and improve sagebrush habitats through existing and/or revised livestock grazing management, structural projects and vegetation treatments. Sagebrush cover goals for the area under Alternative B are found in Table 9 in Chapter 2. Wildlife has not been monitored in the past burn units with the exception of walk through surveys. The effects to wildlife from prescribed burning can be found in Chapter 3.</p>
Johnson and Garrity#23	<p>There are a significant number of species that benefit from ecotones, an issue that was never explored in the EA. The EA seems to imply that Douglas-fir/sagebrush ecotones are “black holes” for wildlife, and these areas need to be changed so that wildlife be able to use them. It is not clear what the basis for this interpretation is. It is currently acknowledged that edge habitats at lower elevations are important to goshawks, and various songbirds, such as the Loggerhead shrike, chipping sparrow, etc. Ecotone areas are also extremely important for big game, such as calving habitat and winter habitat. Why is less sagebrush and less hiding cover needed on winter</p>	<p>Chapter 3 describes the historic condition in the project area. Based on local studies (Heyerdahl et al. 2006) as well as field observations, the project area historically had fire frequencies between 2 and 80 years, with an estimated mean fire interval of 35-40 years. A fire history study in the Big Hole watershed near Wise River found surface fires that historically maintained open “savannah” and woodland Douglas-fir forests in the project area were excluded around 1855 (Heyerdahl et al. 2006). Historic fires were found to be extremely important in creating heterogeneous landscapes of the Douglas-fir forest types and in maintaining mountain big sagebrush and grasslands. Crown fires were probably not common in Douglas-fir stands in the project area and overstory tree density was most likely too low to carry active crown fires. Two fire history studies conducted by the Beaverhead-Deerlodge National Forest in 1996 and 1997 also found that prior to the 1860s, the analysis area was dominated by open habitats and an old-growth forest component constituted less than 5 percent of the forested habitats (USDA 2001b). From this description, it appears that the ecotones have been altered from historic conditions and likely provide lower quality habitat than under historic fire regimes. The effects to wildlife habitat from the project including effects on big game, calving habitat, winter range, hiding cover, goshawks and migratory birds can be found in Chapter 3 of the UBHE EA.</p>

	<p>range and calving/fawning habitat, and how was this determined? Has the wildlife use in these encroachment areas been monitored, and if not, how can you manage them for wildlife without this information? If you aren't managing for wildlife, what are you managing for?</p>	
Johnson and Garrity#24	<p>It seems likely that logging/burning ecotones is being done to increase forage for livestock, and this should be clearly identified to the public. There is no obvious wildlife rationale for thin/burn ecotone savannah habitat. As for sagebrush, an "at risk" species, it is unreasonable to burn ecotones in order to save sagebrush, since burning will kill it. If sagebrush is so important, then simply remove the conifers in important sagebrush areas, including those important to sagebrush</p>	<p>Multiple types of treatments are proposed under this project to remove conifers from sagebrush including hand cutting, mechanical thinning and burning. Although not specifically stated in the UBHE EA, removing conifers in sagebrush stands using prescribed fire would only be conducted when conifer densities are high or if there is an extensive conifer seedbed. This would promote a more effective treatment that would result in less conifer regeneration after treatment and allow more sagebrush, as well as forbs and grasses, to become established. In addition, as stated in Chapter 2 of the EA, objectives of burning in sagebrush would be to maintain at least 50 percent sage cover while removing as much conifer colonization as possible. The purpose of this project is stated in Chapter 1, the purpose of this project is not to increase forage for livestock.</p>

	<p>obligate. In the past, burning sagebrush has been done to increase forage for livestock. Please define why this isn't the current case, and demonstrate that the agency isn't misleading the public in regards to sagebrush/ecotone "treatments."</p>	
Johnson and Garrity#25	<p>Please discuss the cumulative impacts of burning and grazing in sagebrush. It is highly likely that there are existing "significant cumulative impacts" on sagebrush due to burning and grazing. Please define how the health of sagebrush has been measured in the project area, and address the fragmentation impacts of past burning as well as the opening impacts of livestock grazing, including on regeneration of sagebrush in past burns.</p>	<p>Cumulative effects to the project can be found in Chapter 3 of the UBHE EA.</p>

Johnson and Garrity#26	<p>Fragmentation of sagebrush habitats needs to be assessed. There is ample science that demonstrates that sagebrush habitat and their associated species are harmed by fragmentation. Please evaluate the impacts of this fragmentation in the updated NEPA analysis.</p>	<p>The historic condition describing how the sagebrush would be distributed as well as the current condition can be found in Chapter 3 of the UBHE EA. As stated in Chapter 3, although the amount of basin big sagebrush and mountain sagebrush communities in the project area is similar to the historic reference condition, what's clearly different is the number of acres in different structure stages (low, moderate and high canopy cover). The effects to sagebrush from this project are found in Chapter 3 of the EA.</p>
Johnson and Garrity#27	<p>Please identify why the proposed management of pileated and three-toed woodpeckers in the project areas is expected to ensure local persistence. There is considerable body of science available on pileated and three-toed woodpecker management, literature that was not addressed in the EA. Although not noted, the pileated woodpecker is a Montana Species of Concern. Both of these species required larger blocks of undisturbed forest habitat across the landscape for viability. Please define if and how these habitat needs for these species will be met to ensure local viability in order to avoid significant direct impacts from the Project.</p>	<p>Discussion of both Pileated woodpecker and three-toed woodpecker habitat can be found in Appendix B. The effects to Pileated woodpeckers from this project can be found in Chapter 3. The effects from this project to three-toed woodpeckers can be found in Chapter 3. ADD TO BODY OF EA – PAGE 3-56 - Alternative B would have both direct and indirect effects to pileated woodpecker habitat, especially in Douglas-fir savannah habitat where a greater number of mid-seral trees would be removed. Up to 1,640 acres of Pileated woodpecker habitat in Douglas-fir savannah could be reduced in quality for this species. Thinning in Douglas-fir forest would be expected to retain suitable pileated woodpecker habitat and strive to reduce mortality of large, older trees. Riparian restoration would improve habitat for Pileated woodpecker under this alternative. ADD TO BODY OF EA – PAGE 3-71- Alternative C would have both direct and indirect effects to pileated woodpecker habitat, especially in Douglas-fir savannah habitat where a greater number of mid-seral trees would be removed. Up to 900 acres of Pileated woodpecker habitat in Douglas-fir savannah could be reduced in quality for this species. Thinning in Douglas-fir forest would be expected to retain suitable pileated woodpecker habitat and strive to reduce mortality of large, older trees. Riparian restoration would improve habitat for Pileated woodpecker under this alternative.</p>

Johnson and
Garritty#28

Since bark beetle and other pests are good for the pileated and three-toed woodpeckers, species that are “keystone species” for a host of other wildlife, please define how control of bark beetles, etc., in the Project Area will still provide habitat for all these species. There was no information provided in the EA, including maps of suitable woodpecker habitat that will be retained over time, to show the public that habitat will be provided for these species to ensure local persistence. Since the treatments will directly eliminate habitat for woodpeckers and a host of secondary cavity nesters, the agency need to show where and how much habitat will be left for these species, and where it will be located on a map, as well as how the agency knows that this amount of habitat will be sufficient for long-term persistence of this large group of species.

Forest mortality and loss of tree vigor due to forest insects is well documented in the project area. Forest Service entomologists have been working with the BLM for several years to reduce the epidemic levels of forest insects in this area. It is not possible for the BLM to treat enough acres to completely prevent insect mortality in the project area. The BLM is proposing to focusing treatments in specific areas with a goal of increasing the vigor of remain trees and increase the overall health of these forest stands for a variety of wildlife species. Table 18 in Chapter 3 shows the acres of forest habitat within the project and analysis areas. Alternative B could thin up to 33 percent of the Douglas-fir forest in the project area while Alternatives C and D could thin up to 19 percent of the Douglas-fir forest in the project area. This should ensure that enough Douglas-fir forest isn’t treated to provide foraging opportunities for woodpeckers. In addition, there are approximately 14,500 acres of Douglas-fir forest on Forest Service, State and Private lands in the analysis area. This would also provide adequate foraging opportunities for woodpeckers. ADD THIS TO THE DOCUMENT – PAGE 3-5 - Douglas-fir stands and large individual Douglas-fir trees are dying or susceptible to mortality due to previous drought conditions and dense forest stands that provide ideal conditions for forest insect activity. Increasingly dense stands of Douglas-fir are susceptible to the western spruce budworm because these stands are often stressed by competition between densely growing trees and interlocking branches that allow spruce budworm to easily move from tree to tree. Areas of Douglas-fir mortality and poor stand conditions due to western spruce budworm can be seen in the Jerry Creek to Johnson Creek areas. Not only are Douglas-fir stands experiencing significant damage from the western spruce budworm, but the Douglas-fir beetle is attacking and killing the largest and oldest Douglas-fir in stands throughout the planning area. Old growth trees stressed from resource competition and from a loss of foliage due to budworms are highly susceptible to Douglas-fir beetle attacks and mortality. A map displaying insect activity can be found at:
<http://www.fs.usda.gov/detailfull/r1/forest-grasslandhealth/?cid=stelprdb5182947&width=full>

Johnson and
Garritty#29

The EA infers that snag habitat will remain abundant in the project area, but no actual analysis was provided. The information provided on snag management is limited to a statement that snags over 18 inches/15inches dbh will be retained. So what? How do you know this will be enough for foraging habitat for woodpeckers? How will foraging habitat be maintained by leaving a few existing snags, since woodpeckers require a continual new supply of snags over time for foraging? The reported snag policy will clearly result in severe loss of foraging habitat for woodpeckers, which in turn will severely impact other species. The current science has clearly demonstrated that leaving a few snags will not meet the needs of woodpeckers. So what is the proposed snag management policy based on? Please define what the expected level of snag recruitment is after thinning, and how this will ensure viable populations and woodpeckers. What exactly is the number of snags expected to be provided in harvest units? If you don't know this, how can you predict that no significant impacts will result? Also, the claim that

Chapter 3 of the EA states "Historically, snags were probably found in low densities on the landscape but these snags would have been large and persisted over a long period of time. Due to spruce budworm and mortality from the Douglas fir beetle, snag habitat and potential snag habitat has increased significantly over historic conditions." Field reviews by both BLM staff and Forest Service Entomologists have noted an increase in mortality of all size classes of Douglas-fir from spruce budworm and Douglas-fir beetle as well as mortality of lodgepole pine from the mountain pine beetle. The Butte RMP states the following: The BLM will manage for adequate numbers, species and sizes of snags and levels of downed wood to contribute to the needs of wildlife, invertebrates, fungi, bryophytes, saprophytes, lichens, other organisms, long-term soil productivity, nutrient cycling, carbon cycles and other ecosystem processes. To determine the "range of natural conditions" for snag densities, the BLM will follow the "Northern Region Snag Management Protocol" (USDA-FS 2000) until more current or site-specific information becomes available." 1) Within appropriate habitats, snags and down woody material will be managed to be well-distributed across the landscape in sufficient quantity and quality to support species dependent upon these habitats. 2) At the project level, dead and down woody material will be retained in amounts that are within the range of natural variability for the plant community, to the extent compatible with reforestation objectives, fire hazard reduction standards, and public safety. 3) Management for wildlife values associated with large amounts of down wood and snags will be emphasized less in WUI areas to allow for fuels reduction projects that would reduce the potential for extreme wildland fire. Based on Pfister (1977) habitat types and the Northern Region Snag Management Protocol (USDA 2000), the number of large snags per acre (>20"DBH) in the project area would range from 4-12. The increase in forest insect activity has substantially increased snag habitat across the landscape to levels likely greater than 4-12 per acre. However, as stated in Chapter 2 of the EA, "Unless otherwise stated, all snags >15" DBH would be retained, with the exception of those threatening human safety." The RMP snag retention requirements of 4-12 per acres along with maintaining all snags >15"DBH, would ensure that large snags would be retained on the landscape for those species dependent on snag habitat. In addition, only 26 percent of the total mature forest habitat would be thinned under Alternative B and 14 percent thinned under Alternatives C and D in the planning area, ensuring a supply of snags into the future.

	<p>burning will increase snags has to be supported with some science and monitoring. This is unlikely for larger snags, and in any event, snag creation just after burning would only be short term. In summary, it is not clear how ongoing snag recruitment is going to occur in thinned stands without bark beetle infestations, either endemic or epidemic.</p>	
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Johnson and Garrity#31	<p>There was no analysis of how a reduction in conifer seeds with forest thinning will affect various species of birds. The EA completely failed to address the impact of the proposed thinning on a host of songbirds and small mammals that depend upon conifer seeds at least part of the year. These impacts include the Clark's nutcracker, who actually depends on conifer seeds in various conifer species, not just whitebark pine and limber pine. What will be the reduced carrying capacity in these large suite of wildlife as the key "forage" is reduced with forest thinning. What species will be affected, and how will these impacts be measured as per significant.</p>	<p>Effects to song birds from the removal of conifers are found throughout the Wildlife Effects section of Chapter 3 (refer to General Forest and other subsections). More specific effects to migratory birds can be found in Chapter 3.</p>
Johnson and Garrity#32	<p>The agency needs to do wildlife surveys in the project area so that habitat planning can be done. It was noted that there were no nongame wildlife surveys done, even though various bird species as identified as Birds of Conservation Concern by the USFWS, or as Montana Species of Concern, or as Forest Service sensitive species. How can forest management be done without any inventory data of these species? These include a</p>	<p>The EA does not state that there were "no nongame surveys done." Chapter 3 of the UBHE EA does state "Specific surveys for neotropical birds were not done in the project area. However, data obtained from the Northern Region Landbird Monitoring Program within the project area was used to determine representative species. Species found at two monitoring sites included; American robin, ruby-crowned kinglet, song sparrow, spotted towhee, green-tail towhee, vesper sparrow, warbling vireo, western wood pewee, white-breasted nuthatch, white-crowned sparrow, yellow-rumped warbler, yellow warbler, mountain bluebird, mountain chickadee, northern flicker, pine siskin, rock wren, Swainson's thrush, western tanager, and Williamson's sapsucker." In addition, wildlife observations were documented through past surveys, walk-through surveys, wildlife cameras, BLM and FS wildlife observation databases and the Natural Heritage Species of Concern Data Report.</p>

	<p>number of vulnerable species associated with or benefited by sagebrush, such as the white-crowned sparrow and green-tailed towhee, Loggerhead shrike and Brewer's sparrow.</p>	
Johnson and Garrity#33	<p>There was no analysis of Project impacts on juniper. Please define how much juniper will be destroyed, and the value of this habitat for both game and nongame species. What level of habitat loss is considered to create significant local reductions in benefits wildlife populations? What also in the impact of juniper cutting/burning on big game species? Why would this benefit big game, including foraging?</p>	<p>Chapter 3 in the UBHE EA describe forest habitats and sagebrush habitats in the project area. As described and supported by field review and fire history studies, juniper is not a major vegetation type in the project area, especially in treatment units. Although some juniper could be removed during project implementation such as in aspen stands or if large patches are found, juniper would not be the focus species for removal. As stated in the EA, Douglas-fir colonization was identified as an issue for declining forest health as well as for the loss of sagebrush and aspen. Douglas-fir would be the target conifer species for removal with this project. In addition, Chapter states that "large, bushy junipers would be retained for mule deer thermal cover."</p>
Johnson and Garrity#34	<p>Why is killing of birds by burning balanced out of habitat benefits? It is unclear why burning forests and sagebrush will benefit wildlife, as we are not aware of any actual benefits based on current science. In addition to habitat losses, birds will also be killed by burning. Please define why this direct</p>	<p>The effects to wildlife, including song birds can be found in Chapter 3. To minimize the effect to migratory birds, prescribed burning would normally occur before May 15. Due to snow conditions, however, prescribed burning might not be possible until after May 15. Under these conditions, surveys would be completed to document avian use. Burns would be allowed to occur if low nesting use is documented or mitigation measures are done to protect nesting birds.</p>

	<p>killing of birds is considered necessary, and why the benefits to birds outweighs this direct mortality.</p>	
Johnson and Garrity#35	<p>The EA failed to provide any information as to why forest thinning will benefit the goshawk. The impact of forest management on the goshawk is generally tied to impacts on goshawk prey (Reynolds et al. 1992). It is impossible to assess logging/burning impacts without an understanding of impacts on goshawk prey. However, there was no analysis in the EA as to why logging/burning will increase prey species, or which species these are. There is a considerable body of science that clearly demonstrates logging will have adverse impacts on various goshawk prey species. If the agency has other data that contradicts this science, it should be provided in the analysis. For example, why will logging/forest thinning/precommercial thinning increase goshawk prey species as hares, squirrels and woodpeckers.</p>	<p>The effects to northern goshawk habitat from the UBHE project are described in Chapter 3. Where the effects to goshawk habitat area described as converting suitable habitat to unsuitable habitat, it is assumed that this would also have negative consequences on prey for the goshawk. Chapter 3 states, “creating open forest conditions with an understory of grasses, forbs and shrubs as well as providing more diversity of habitats would likely increase prey species for the northern goshawk under all action alternatives.” It has suspected that creating a diversity of habitat and creating more understory vegetation would increase small mammals and avian species (prey for the northern goshawk). ADD TO APPENDIX B- Goshawks are generalists when it comes to foraging, hunting beneath the forest canopy in dense and open stands and at forest-grassland and forest-shrubland ecotones, where they take a wide variety of prey that includes forest grouse, woodpeckers, corvids, lagomorphs, and squirrels.</p>

Johnson and Garrity#36	<p>The EA provides unsupported claims that logging impacts on the goshawk. The EA claims that as long as canopy cover remains at 30-50% habitat for the goshawk will also be maintained. We are not aware of what this conclusion was based on. Please provide the research that showed that heavy forest thinning maintained goshawk prey species for foraging at densities comparable to unthinned stands.</p>	<p>The BLM agrees that additional information should be provided to the EA regarding the effects to wildlife. EDIT PAGE 3-61 - Management recommendations for sustaining habitat for the northern goshawk and their prey include prescribed fire, thinning from below to achieve non-uniform spacing of trees >18" DBH (not to exceed 30-50 percent canopy opening) and various slash treatments (Reynolds et al. 1992).</p>
Johnson and Garrity#37	<p>The project impacts on great gray habitat were not accurate. The great gray owl requires decadent old growth forest for nesting, and for foraging habitat, it prefers areas with high concentrations of downed logs. It is also dependent upon dense forest habitat in the winter for snow plunging. So it is not clear why forest thinning is reported as a benefit to this Montana Species of Concern. What science is this based on? How will winter habitat with dense canopies and abundant vole populations (red-backed voles included) be provided/maintained for this species in the project area? Also, how will a continual supple of large broken-topped snags be maintained as great gray owl nesting habitat in</p>	<p>ADD TO APPENDIX B – A study by Bryan and Forsman (1987) found that out of 63 nests surveys, 60 were within 0.2 mile from a meadow. All forests were in old-growth or mature stands characterized by relatively large overstory trees. Forty-four of the 63 sites had been subjected to selective logging within the previous 20 years but all sites contained some areas of fairly dense forest. Stand structure, canopy closure, tree species composition, and distance to the nearest meadow at nest sites were variable. Canopy closer was found to range from 15-70 percent. This study indicated that great gray owls are likely flexible with most nest site parameters. Chapter 3 states “Douglas-fir savannah habitat would have very open canopies after restoration activities and some species (such as great gray owls) would find these conditions unsuitable for nesting whereas others would prefer these conditions.” ADD TO PAGE 3-60 - In the Jimmie New area, thinning roughly 1,187 acres of Douglas-fir savannah would result in a reduction of canopy cover to less than 30 percent. No trees larger than 18"DBH would be removed but the reduction of canopy could result in unsuitable habitat for the great gray owl. ADD TO REFERENCES – Bryan, T. and E.D. Forsman. 1987. Abundance, and habitat of great gray owls in Southcentral Oregon. The Murrelet, Vol. 68, No. 2. pp. 45-49.</p>

	logged areas?	
Johnson and Garrity#38	<p>The definition of big game security was inaccurate. Hillis et al 1991 was cited regarding security, but as per that report, security requires contiguous blocks of hiding cover. The EA failed to include hiding cover as a part of security, so that analysis is flawed and misleading. Please map big game security, as per the entire Hillis et al. (1991) definition, for the project area before and after logging.</p>	<p>As stated in Chapter 3 of the UBHE EA, “Elk security measures the inherent protection allowing elk to remain in an area despite increases in stress or disturbance associated with hunting or other human activities. Security areas are often larger than 250 acres, nonlinear, at least 0.5 mile from an open road, and occupying at least 30 percent of the area used during autumn (Hillis et al. 1991).” Chapter 3 of the EA also describes the existing amount of security habitat available to big game by the 5 major areas, and the effects to security habitat. A map of security habitat will be included in the administrative record.</p>

Johnson and Garrity#39	<p>Project impacts on hiding and thermal cover were not identified. Please map and quantify existing and planned hiding cover and thermal cover in the project area before and after logging/burning. How will the agency ensure, as well, was forage is not too far from hiding cover to be effective (over 1200 feet wide foraging areas). What is the recommended level of hiding and thermal cover on big game summer ranges, and what will be provided in the Project Area? What is the management plan for hiding and thermal cover on the winter ranges, and why? Are planned levels adequate to prevent significant habitat losses for big game?</p>	<p>The effects of the UBHE project on hiding and thermal cover can be found in Chapter 3 of the EA.</p>
Johnson and Garrity#40	<p>The EA failed to identify the habitat effectiveness levels for big game and other wildlife DURING logging. Please identify the active motorized route density, including ATV trails, that will occur in the various project areas during logging, and why this won't significantly disturb/displace elk and other wildlife.</p>	<p>The effects to big game and other wildlife species from roads, including temporary roads used for logging, can be found in the Wildlife Section of the UBHE EA, Chapter 3.</p>

Johnson and Garrity#41	<p>There appears to be existing significant impacts on big game due to winter disturbances on winter ranges that need to be included in a cumulative effects analysis of disturbance/displacement. Since there are various winter range areas that are not meeting BLM objectives, why aren't these disturbances considered significant? Please define how cumulative disturbances on big game, including those most severe in the winter and in calving habitat, are being evaluated as per measuring significant impacts.</p>	<p>As stated in Chapter 2 of the EA "project implementation would only be allowed from April through October 1 to protect elk on winter range and to provide for a quality hunting experience during the big game rifle season." This would prevent disturbance to elk and other big game species during the critical winter season. EDIT ON PAGE 3-54 - Alternative B proposes 3.58 miles of new seasonally restricted (2.47 miles closed 12/2-6/30 and 1.11 miles closed 12/2-5/15) roads in the Jimmie New area. The increase of seasonally restricted roads would not impact big game during the winter season, but could have minimal (DELETE THE WORD MINIMAL) effects during the calving season as well as adverse effects during the hunting season. Re-opening routes would increase open route densities during the calving season from 1.19 mi/sq. mi. to 1.3 mi/sq. mi. One of the biggest issues with the proposed open roads under Alternatives B is the location of the roads on the landscape. Each of the 5 proposed routes is less than 0.7 mi. from another route that is proposed to be open and all routes are within 1.6 miles of all other routes (Appendix A, Map 5). This could create concentrated human use within this area during hunting season. EDIT ON PAGE 3-70- Like Alternative B, Alternative C proposes 3.58 miles of new seasonally restricted (closed 12/2-6/30 2.47 miles closed 12/2-6/30 and 1.11 miles closed 12/2-5/15) roads in the Jimmie New area. Re-opening routes would increase open route densities during the calving season from 1.19 mi/sq. mi. to 1.3 mi/sq. mi. One of the concerns with the proposed open roads under Alternative C is the location of the roads on the landscape. Each of the 5 proposed routes is less than 0.7 mi. from another route that is proposed to be open and all routes are within 1.6 miles of all other routes. This would create concentrated use within this area during both hunting season.</p>
Johnson and Garrity#42	<p>The science regarding logging impacts on flammulated owls was not provided. Please provide the science/monitoring to support the claim that logging will benefit the flammulated owl.</p>	<p>The EA states that thinning dense stands of forest would open canopies and create habitat conditions preferred by flammulated owls. Refer to Chapter 3 of the EA.</p>

Johnson and Garrity#43	<p>The science used to support the EA claim that mosaics of sagebrush will benefit the sage grouse were not provided. The direct monitoring available of sage grouse as per burning impacts of sagebrush has produced conflicting information, although none has definitively shown that fragmenting sagebrush will benefit this species. The ultimate impact will be the level of sagebrush in the general landscape, which has a minimum threshold level that must be provided for grouse. The level was not addressed in the EA, so any claims regarding project impacts are sage grouse are invalid.</p>	<p>Appendix B and Chapter 3 describes sage grouse habitat in the project area. There are anecdotal accounts of sage grouse in the project area but no leks or breeding birds have been found. The project area is not within Preliminary Primary Habitat for sage grouse. The Report on National Greater Sage Grouse Conservation Measures produced by the Sage Grouse National Technical Team in 2011 identifies an objective of managing or restoring priority areas so that at least 70 percent of the land cover provides adequate sagebrush habitat to meet sage-grouse needs. The project area, however, is outside of priority area for sage grouse. As stated in Chapter 3, research in Montana revealed that during the breeding season sage grouse utilize habitat with 20-50 percent canopy coverage of big sagebrush (MSGWG 2005). Wintering grouse were found in areas with 20 percent sagebrush cover, and nesting birds were found in areas with an average of 15-30 percent sagebrush cover (MSGWG 2005). Maintaining 50 percent of the overall habitat during prescribed burning would protect sage grouse habitat. In addition, of the 5,866 acres (Chapter 3) of sagebrush on BLM lands in the project area, 1,400 are proposed for conifer removal under Alternative B (24 percent) with 840 acres identified to treat either mechanically or with prescribed fire. Only 14 percent of the total sagebrush habitat in the project area would be impacted by prescribed fire in the project area under Alternative B. This would be less under Alternatives C and D with up to 6 percent of the total sagebrush habitat in the project area potentially impacted by prescribed burning.</p>
Johnson and Garrity#44	<p>Since the sage grouse is a candidate species, the agency needs to consult with the USFWS on project impacts. Please provide evidence that the agency has/will consult with the USFWS regarding management of sage grouse and project impacts, as well as past impacts from burning sagebrush and grazing livestock, especially in riparian areas that are severely damaged as a result, such as in Jerry Creek.</p>	<p>Appendix B and Chapter 3 describe sage grouse habitat in the project area. There are anecdotal accounts of sage grouse in the project area but no leks or breeding birds have been found. The project area is not within Preliminary Primary Habitat for sage grouse. Primary Habitat includes areas that have been identified by the BLM as having the highest conservation value to maintaining sustainable greater sage-grouse populations. Consultation with the USFWS was determined to not be required.</p>

Johnson and Garrity#45	The agency noted correctly that a permit as per the Clean Water Act requires a permit for storm water discharge. These permits are required PRIOR to release of a decision.	Please see response to comment Garrity #23 regarding permits.
Johnson and Garrity#46	The area includes lynx habitat, something the EA failed to acknowledge. The project area is within suitable lynx habitat, and many actually contain lynx. The agency cited no surveys regarding lynx presence. Please provide an analysis of lynx habitat, including low elevation savanna areas that provide for alternate prey species (jackrabbits and cottontails), and travel corridors between mountain ranges. Please demonstrate that the agency consulted with the USFWS on lynx prior to releasing a final decision.	As stated in Appendix B, “habitat types within the UBHE planning area were found to be predominately dry Douglas-fir habitat types (Douglas-fir/pinegrass) with dry lodgepole pine. The previously harvested lodgepole pine stands identified for thinning under the action alternatives do not provide the structure or understory for high concentrations of snowshoe hares. Therefore, the project area is not considered to provide suitable foraging habitat for lynx. The area does provide habitat (cover) for lynx using the area as a migration or movement corridor.” Due to the type and quality of habitats (dry forest and lack of understory structure), the project was not found to negatively impact forage habitat for lynx. Forest thinning and removal of conifers from sagebrush could reduce cover for lynx moving through the area but adequate cover would remain after implementation in adjacent stands and riparian restoration would also be expected to improve movement corridors for this species. It was determined that the project would have a “No Effect” to lynx and consultation with the USFWS was not required.

Johnson and Garritty#47	<p>The area is occupied grizzly bear habitat, and the agency is required to consult with the USFWS prior to making a decision on the Project. Please provide the results of the consultation that will be completed with the USFWS on grizzly bears when a final decision is released.</p>	<p>Appendix B describes grizzly bear habitat and use in the project area. As stated in Appendix B, the project area is outside of identified recovery or distribution zones for the grizzly bear but unconfirmed grizzly bear sightings occasionally do occur in the Big Hole watershed. Due to existing disturbance and development from adjacent private lands, the project area most likely does not provide quality, secure habitat for the grizzly bear. The project area does, however, provide migration and dispersal habitat. Although grizzly bears have been identified in the area, there are currently no resident grizzly bears in the project area. The project would modify habitat but grizzly bears are likely transients in the project area and modification of habitats would not be expected to affect their movement. In addition, the project would be expected to improve habitat conditions for grizzly bears by increasing the quality and diversity of forage and prey for this species. Human disturbance would increase during project implementation as well as with an increase in road density under Alternative B but this would not be expected to prevent grizzly bear movement through the project area. All action alternatives were found to have a “No Effect” determination for the grizzly bear and consultation with the USFWS was not required.</p>
Wildlands CPR	<p>“Regarding Rd. #010105 connecting to the Forest Service Bean Ridge Rd. #2166, the UBHE EA explains the proposed action is necessary to meet the Forest Service season of use. While this is understandable, such action should not be decided until the Beaverhead-Deerlodge National Forest completes its travel management planning since the Forest Service may also close its side of the road to benefit wildlife habitat.”</p>	<p>The intention for route # 010105 was always to match the USFS designation (i.e. open to motorized vehicles with seasonal restrictions). BLM is simply correcting a mapping and documentation error from the 2009 Upper Big Hole Travel Management Plan. If the USFS changes its designation during the upcoming travel planning process, BLM could re-visit the designation at that time.</p>

Wildlands CPR	<p>“The UBHE EA discloses that the proposed action would negatively affect non-motorized recreation use, (p. 3-100), but that such impacts would be minimal because of surrounding opportunities. This same logic could be used for motorized recreation, in that there are plenty of motorized opportunities in surrounding areas. Off-road vehicle activists will always push for more opportunities and there is no threshold for determining how much is enough; how many miles, how many routes will be satisfactory. The 2009 RMP provides opportunities within the agency’s ability to manage the impacts, and any future decision should not reverse this plan.”</p>	<p>Since the implementation of the Upper Big Hole Management Plan in 2010, all of the verbal comments received from the public have been in regards to loss of motorized access and opportunities. No comments have been received regarding the loss of non-motorized opportunities. The EA analysis reflects this condition.</p>
Sara Jane - 11	<p>There was no documentation or science to demonstrate that these forests and savanna areas are unnatural. Please provide the current science that supports the claims that these forests are unnaturally dense, and that ecotone/savanna areas are unnatural for this landscape.</p>	<p>Chapter 3: Heyerdahl (2006) estimated 19 stems per acre represented the pre-settlement condition in historic Douglas-fir savannas in the project area. Chapter 2: After thinning activities, trees under 15”DBH would generally be less than 20 per acre and forest canopies would be open at <30 percent (Heyerdahl 2006). Chapter 3: A fire history study in the Big Hole watershed near Wise River found surface fires that historically maintained open “savannah” and woodland Douglas-fir forests in the project area were excluded around 1855 (Heyerdahl et al. 2006). Chapter 3:..... resulted in an increase of Douglas-fir in the area including successfully colonizing many sagebrush meadows (Heyerdahl et al. 2006). Historically, savannah habitats became increasingly open with decreasing elevation or increasingly dry soils, until they were so sparse that they are no longer considered forests. (Arno 1979). Chapter 3 : Historic fire played a role in keeping Douglas-fir savannah stands open by burning seedlings, saplings, and pole-sized trees too small to have developed fire resistant bark. Ignitions were lightning caused as well as from Native Americans (Barrett 1980). Page 3-8: Of these 4,734 acres of Douglas-fir savannas, 93 percent are in stands with “closed” canopies, which represent seral states that develop with a prolonged absence of fire (Fischer and Bradley 1987).</p>

		<p>Page 3-9 : While multi-aged stand structure is expected, fire-maintained open parklike settings in these forests are occurring less frequently than expected (Fischer and Bradley 1987). Page 3-6: Two fire history studies conducted by the Beaverhead-Deerlodge National Forest in 1996 and 1997 also found that prior to the 1860s, the analysis area was dominated by open habitats and an old-growth forest component constituted less than 5 percent of the forested habitats (USDA 2001b).</p>
Sara Jane - 30	<p>There is no analysis of old growth habitat. It is not clear why old growth habitats are not evaluated in the EA. These are important to a host of wildlife, including the goshawk and great gray owl, as well as winter habitat for pine marten. Please define current levels and locations of old growth forests before and after the proposed treatments, and how existing and planned levels are/will affect the persistence of associated/benefited species in the project areas.</p>	<p>This comment was initially raised after scoping and was addressed in the original draft EA in Appendix A in the following 2 responses: "The BLM does not have an old-growth specific data product that describes this feature by size, extent, or location. Old growth is discussed in the Affected environment and cumulative effects. Also the Butte RMP provides direction for managing to promote "old-forest" structure". and: "The BLM is not proposing to log any old-growth. The Butte RMP requires we manage to promote old-forest structure. Much of this landscape has been exposed to human activity since the mid-to late- 1800s. Refer to Affected Environment (Chapter 3) and Cumulative Effects (Chapter 4)." This comment is addressed in EA under cumulative effects on page 3-112. No old growth forests exist in the project area. None have been identified or mapped. No maps exist showing old growth forests on BLM land in this area.</p>
Garrity #34	<p>How have those processes (mixed and high severity) created the ecosystems we have today?</p>	<p>The forest and woodland health of the project area is described in detail starting on page 3-5 of the EA. Also the study, History of fire and Douglas-fir establishment in a savanna and sagebrush-grassland mosaic, southwestern Montana, by Heyerdahl et al. 2006, describes how the lack of fire on this landscape has shaped the project area. Fire suppression, grazing and relatively low summer precipitation has played a role in the establishment of conifers in area that were previously unoccupied. In current untreated stands, a fire occurrence in these areas could burn with a higher level of severity than one would have expected historically due to the factors previously described.</p>
Garrity #35	<p>Over how many millenia have mixed and high severity fire been occurring without human intervention?</p>	<p>Fire has occurred on the landscape for many years at varying levels with and without human intervention.</p>

Garrity #33	What about the role of mixed severity and high severity fire- what are the benefits of those natural processes?	<p>Chapter 1 describes the decrease in forest health in the project area and how the overstocked, dense forests have increased fuel loads and ladder fuels, which promote severe fire behavior. In Chapter 3, the EA states that all potential actions, on up to 4,720 potential acres, would restore more forest stands than the other action alternatives by promoting stand conditions more consistent with those created and maintained under a mid-severity fire regime;</p> <p>Also stated in Chapter 3, the direct and indirect effects of no action would be a continued trend away from the desired future condition as well as variability outside the range of what is expected when plant communities develop under a mid-severity fire regime.</p>
Johnson and Garrity #14	The term "restore" sagebrush via burning is clearly a misrepresentation of the actual impact. The burning of sagebrush is destructive, not "restoration." Please correct this claim in the final analysis document.	<p>We do not state we are planning on burning sagebrush to restore the sagebrush community. It is stated in Chapter 1 that land health would be improved and progress would be made towards meeting land health standards on public lands by maintaining and improving sagebrush habitats (species composition and structure) through existing and/or revised livestock grazing management, structural projects and vegetation treatments. Also in Chapter 2, it is stated that the objects in the prescribed fire polygons areas is to use prescribed fire and mechanical activities to reduce conifer colonization and move toward an open mosaic of sagebrush/grassland .</p>